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Retirement of General Crosby

THE RETIREMENT of Major General Herbert B. Crosby on March 21, 1930, brought to a close a brilliant army career culminating in his four years' detail as Chief of Cavalry.

Born in Kansas, December 24, 1871, he was appointed to the Military Academy from Illinois, graduating in 1893. He is an honor graduate of the School of the Line, graduate of the General Staff School and of the Army War College. He served in Cuba, campaigned against the Moros in the Philippines and served on the Mexican Border. During the World War he had battle service in command of the 351st Infantry and was highly commended for the superior training and discipline of the regiment. For a time he was in command of the 176th Brigade. His post-war service, prior to becoming Chief of Cavalry, included duty as Instructor at the General Service Schools, Director of the War Plans Course at the War College and Assistant Commandant of the War College.

General Crosby took up the duties of Chief of Cavalry at a crucial point in the post-war development of the arm. The years immediately after the World War necessarily formed a period of close study and evaluation of the lessons of the conflict as applied to the future of the Cavalry. On becoming Chief of Cavalry in March, 1926, General Crosby shouldered the responsibility of directing the reorganization and development of the arm in accordance with the results of these studies. To his high professional qualifications, foresight and vision, the Cavalry owes in great measure its present highly efficient organization and training for modern combat.

It is with deep regret and with best wishes for his future career that the Cavalry bids farewell to its Chief, General Crosby.

Major General Guy V. Henry

AS the JOURNAL goes to press the announcement is made that the President has nominated Colonel Guy V. Henry, 3d Cavalry, to be Chief of Cavalry to succeed Major General Herbert B. Crosby, whose term of office expires March 21, 1930.

Colonel Henry was born at Fort Robinson, Nebraska, January 28, 1875. Upon graduation from West Point in April, 1895, he was appointed second lieutenant, 4th Infantry, and transferred to the 1st Cavalry on September 26, the same year. He was detailed as aide-de-camp to General Guy V. Henry. He served in Porto Rico until May 19, 1899, when he returned to the United States for duty. July 5, 1899, he was commissioned captain, 26th Infantry, United States Volunteers, and on September 5, the same year, sailed with his regiment for the Philippine Islands. On September 13, 1899, he was promoted to major and placed in command of the 1st Battalion, United States Volunteers. On May 5, 1901, he organized and commanded the battalion of Panay Scouts. On May 13, he was honorably discharged as major, United States Volunteers, and on July 25, 1901, joined the 4th Cavalry at Manila. Returning to the United States September 9, 1901, he served at Jefferson Barracks and Fort Logan H. Roots, Arkansas, which he commanded until March 10, 1902. Returning to Jefferson Barracks, Missouri, he was on duty with the 4th Cavalry until promoted to captain, 12th Cavalry, May 13, 1904. He remained on duty at Fort Riley as Squadron Adjutant and Adjutant of the Post until June 15, 1904. During this period he commanded the detachment during the flood, June 8-13, 1903, and was recorder of the Cavalry Board from December, 1903, to June, 1904.

Colonel Henry graduated from the School of Application for Cavalry and Field Artillery in the spring of 1904 and in August and September of that year participated in the maneuvers at Manassas Junction.

Returning to the Philippines in October, 1904, he served with his regiment until April 18, the following year, when he was ordered back to the United States for duty at Fort Oglethorpe, Georgia. On November 15, 1905, he was detailed as aide to the President and remained on duty at the White House until August 22, 1906. On August 23d, the same year, he was ordered to France for duty at the French Cavalry School, Saumur. Upon completion of the course in July, 1907, he was attached to the 31st Dragoons, French Army, and remained on this detail until September 15, 1907, when he returned to the United States for duty at Fort Riley, Kansas. He was Senior Instructor in



Colonel Guy V. Henry, 3d Cavalry
Nominated as the next Chief of Cavalry

Equitation, Mounted Service School, Fort Riley, Kansas, from October 17, 1907, to August 21, 1908. During the period December 1, 1907, to June 30, 1908, he was a member of the Cavalry Board. August 25, 1908 he transferred to the United States Military Academy as Senior Instructor of Cavalry Tactics, and remained on that duty until September 3, 1911.

Returning to Fort Riley, Kansas, September 8, 1911, he was again detailed as Senior Instructor in Equitation, Mounted Service School, and remained on that duty until December 11, 1913. On January 1, 1914, he transferred to the 7th Cavalry and sailed for the Philippines. He commanded Troop L, 7th Cavalry at Fort William McKinley, Philippines, and at Camp Stotsenburg, Philippine Islands, until transferred to the 9th Cavalry, November 15, 1915. Returning to the United States in May, 1916, he was ordered to the United States Military Academy for duty as Senior Instructor of Cavalry Tactics, which duty he performed until August, 1916, when he was made Commandant of Cadets. He was promoted to major of Cavalry, May 15, 1917, and to lieutenant colonel of Cavalry, temporary, on August 5, the same year. In February, 1918, he was promoted to colonel, temporary, and on the 14th of that month sailed for France on special duty, studying training methods of the American Expeditionary Forces and Allies. He returned to West Point in April, 1918. In August, the same year, he was promoted to brigadier general and ordered to Camp Logan, Texas, where he commanded the 15th Division from September, 1918, to February, 1919. He then commanded Camp Beauregard, Louisiana, until March, the same year, when he reverted to his regular grade of major. Ordered to Port of Embarkation, Hoboken, New Jersey, as Assistant to Port Inspector, he remained on this duty until August, the same year, when he was detailed in the Office of the Adjutant General. In 1920 he was detailed as student officer, Army War College, Washington, D. C., from which he graduated in June, 1921.

In September, 1921, Colonel Henry was ordered to the General Service Schools, Fort Leavenworth, Kansas, as student, School of the Line. Upon graduation in June of 1922, he was detailed as student, General Staff School from which he graduated in June, 1923. July 1st, the same year, he was ordered to the Cavalry School, Fort Riley, Kansas, as Assistant Commandant and remained on that duty until July, 1924, when he was detailed in the General Staff Corps and ordered to the Philippine Department as Chief of Staff. He remained on duty as Chief of Staff, Philippine Department, until July, 1927, when he returned to the United States for duty as Commanding Officer, 3d Cavalry, Fort Myer, Virginia, which duty he performed until selected Chief of Cavalry.

Long identified with the school at Fort Riley, Colonel Henry has perhaps contributed more to raising the standard of horsemanship in the army than any officer in the service. He captained the first team of American officers to participate in an international horse show at the Olympia in London in 1911. The following year he captained and was a winning rider on the 1912 Olympic Equestrian Team at Stockholm. This was our initial appearance in the Olympic Games and Colonel Henry's team set a high standard for future teams, so high in fact that their record remains unexcelled to this date.

The Cavalry welcomes Colonel Henry as its new Chief. His broad practical experience with troops, as well as with the school and other special activities of the arm, peculiarly fit him to guide the development of the Cavalry during the coming four years.



The Military and Sporting Seats

Following are the proceedings of the board appointed to revise certain portions of the *Manual of Equitation* having to do with the military seat and variations thereof for sporting purposes. The board was composed of: Brig. Gen. W. C. Short, Lieut. Col. John A. Barry, Lieut. Col. B. T. Merchant, Lieut. Col. W. W. West, Major H. D. Chamberlin and Captain W. B. Bradford, Colonel Guy V. Henry and Lieut. Col. Ben Lear were called into conference by the board on outstanding questions under discussion. The text as it appears below was unanimously concurred in by the leading authorities of the Cavalry Service composing the board and conferring with it. It is expected to fix a doctrine as to the riding seat which will be standard henceforth.

An extract from the indorsement of the Adjutant General approving the proceedings is as follows: "The attached manuscript, 'The Military Seat,' is returned approved in principle for publication by the Chief of Cavalry as a tentative training memorandum, for trial by the Cavalry School and Cavalry troops with a view to determining necessary modifications, prior to including it in a training manual on equitation."—EDITOR.

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SECTION A THE MILITARY SEAT

I. Introduction.

A seat for military purposes must provide security combined with ease and comfort for both rider and mount. (The seat is principally dependent upon *balance*, supplemented by suppleness of body and muscular control.)

Balance requires that the *center of gravity* of the rider's upper body remain as nearly as possible over the center of its *base of support*. (The *base of support* in the seat described below is formed by those parts of the rider's body in contact with the saddle and horse, from a point directly under the buttocks, down along the inside of the thighs, to and including the knees and stirrups.) The more the center of gravity departs from the center of its base of support, the more unstable becomes the rider's equilibrium. When the center of gravity passes outside the limits of its base of support, the rider's balance is lost and he regains it by gripping with his legs, or in dire necessity, also with his knees and thighs. A poor rider makes the grave mistake of pulling on the reins as an additional means of regaining balance. *The seat must be entirely independent of the hands.* (Such a seat, obligatory for military purposes, is also admirably adapted to all kinds of riding, requiring only the necessary readjustment of stirrups.)

II. Position mounted, at the halt.

(a) *The rider sits squarely in the middle of the saddle, his weight distributed on his buttocks,* thighs and stirrups.*

The positions of buttocks and upper body are interdependent. For the buttocks to bear their proper proportion of weight, the upper body must be erect; its center of gravity is slightly in *front* of the points of the buttocks facilitating the correct placing of the thighs, and the proper distribution of weight. Inclining the upper body to the rear or convexing the loins to the rear places the center of gravity of the upper body in *rear* of its base of support and causes the rider to sit on the fleshy parts of his buttocks, or upon the end of his

* In the following discussion the word "*buttocks*" signifies that portion of the rider's anatomy upon which he rests when sitting naturally erect: *It extends no farther to the rear than the points of the pelvic bone, and merges forward into the thighs.* "*Leg*" is that part of the limb between the knee and ankle.

spine. This faulty position raises the thighs and knees, weakens the seat, concentrates the weight toward the cantle, is unmilitary in appearance, injurious to the horse's back and places the rider *behind* his horse.

(b) *The thighs extend downward and forward, resting without constraint with their inner sides on the saddle.*

With the buttocks and upper body placed as in (a) the thighs are naturally forced down, and the throat of the saddle is brought well up into the rider's crotch; the troublesome fleshy muscles of the inner thighs are thus forced to the rear, and the flat of the thigh is permitted, without muscular contraction, to envelop the horse. Thus seated the proper proportion of the rider's weight is distributed along his thighs, and the tendency to grip with them is avoided.

If the rider resorts to knee-gripping the thighs are turned inward too much, heels are forced out, legs assume an incorrect position and lose their proper contact.

If thighs are turned outward excessively, contact of knee and lower thigh with saddle is lost; the rider has neither the correct distribution of weight nor the proper base of support; lack of security and instability result.

(c) *The knees, flexed and relaxed, are in continuous light contact with the saddle.*

Properly placed thighs, as in (b) above, naturally and correctly place the knees as low as the adjustment of the stirrups will permit. No muscular effort is required to keep the inner sides of the knees in contact with the saddle. The position of the knees is an index of thigh-position. Knees incorrectly placed—too high, or excessively turned in or out—produce the same faulty results as those mentioned in similar incorrect positions of the thighs.

The knees are always as low as the adjustment of the stirrups permits.

(d) *The legs, ankles, feet and stirrups are disposed as follows:*

The legs extend downward and backward with the calves in light, elastic contact with the horse.

Stirrup leathers are always vertical.

The feet turned out naturally, ankles flexed and relaxed, heels well down, rest with their broadest part upon the stirrup treads. When jumping, or riding at fast speeds, the feet are shoved farther home in the stirrups.

The length of stirrup is approximately correct when the tread hangs opposite the lower end of the large bone on the inner side of

the ankle, the rider being seated as described above, his feet out of the stirrups.

(1) *Legs.*—The calves of the legs naturally fall into light, elastic contact with the horse when the knees are flexed and relaxed and the ankles, feet and stirrups are disposed as described above. This contact assists security and is a means of liaison between rider and horse. When the legs are not in contact, liaison is lost and in addition the resultant swinging of the rider's legs confuses a well-trained horse and irritates a nervous one. Correct adjustment of stirrups assists materially in preserving leg contact.

(2) *Stirrups.*—Stirrups for special forms of riding may be longer or shorter than described above. For schooling a longer stirrup may be used; for show jumping, steeplechasing, racing and polo, the stirrups are shortened. Too long a stirrup diminishes the rider's base of support, renders balance difficult, reduces stability and interferes with the proper use of the legs. Too short a stirrup elevates the knee excessively and either places the rider *behind his horse*, with his weight on the cante, or causes him to stand in his stirrups in order to keep in balance.

The adjustment of stirrups as described in (d) above meets all requirements of military riding.

(3) *Feet and ankles.*—Ankles which are stiff or not relaxed cause the rider to have the heels too high. With the heels high the calf muscles cannot be contracted, ability to grip is lost and security is diminished. When the horse is in motion stiffening the ankles often causes the rider to lose his stirrups and prevents the ankles from absorbing their share of the shock. "*Toes turned in*" stiffen the ankles, cause loss of contact of proper part of the calf of the leg, and throw the heels out, thus making the proper use of the leg difficult. "*Toes excessively turned out*," stiffen the ankles, put knees out of contact, place the rider on the back of his thighs and may cause unintentional use of spurs.

(4) *Without stirrups.*—The legs merely hang vertically; knees and ankles are relaxed; feet turn out naturally; toes are lower than heels. When the horse is in motion, the flexion of the knee increases, and the legs come into light, elastic contact with the horse.

(e) *The upper body is naturally erect without stiffness.*

When seated correctly the rider maintains his spine in a position identical with that of the naturally erect dismounted soldier at attention. The hip joints are relaxed to enable the rider to remain in balance. If the upper body is not erect and is inclined too far to the front the proper distribution of weight is deranged. The rider

tends to lose the use of his legs, to ride on his crotch, and presents an unmilitary appearance. On the other hand, the *center of gravity of the upper body is never in rear of the points of the buttocks*. For a further discussion of inclination of upper body to the rear, see *paragraph (b)*. For a discussion of the upper body when horse is in motion see *Section A. III*.

(f) *The shoulders, relaxed, are carried back evenly, without stiffness, and rest in a plane perpendicular to the median line of the horse.*

With shoulders as described above, *the chest is lifted*, facilitating the maintenance of an erect posture of the upper body. Rounded shoulders cramp the chest, invite a general slumping of the back and loin, and cause the elbows to fly out from the body. Shoulders forcibly carried back result in general contraction.

(g) *The arms and elbows are free and relaxed.*

A natural relaxation of the arms insures freedom and quietness in the use of the hands. Contraction quickly communicates body-movements through the hands to the horse's mouth, resulting in loss of that understanding and tranquility which are so essential.

(h) *The reins are held as prescribed in training regulations in either or both hands, fingers relaxed, knuckles approximately vertical.*

(1) *The reins in both hands.*—The hands, fingers relaxed, are well separated, and held normally above the withers. The forearm, wrist, hand, and rein form one straight line from point of elbow to horse's mouth, the elbow being slightly in advance of the point of the hip. This position will vary from time to time in guiding or controlling the horse, but, with reins properly adjusted, the elbows never pass in rear of the hip. Unsteady hands quickly communicate unintended impressions to the horse's mouth, making him nervous and difficult to control. *Relaxed elbows*, permitting a soft and elastic opening and closing of the elbow angle, enable the rider to follow the movements of the horse's head and neck and are a requisite of good hands.

(2) *If only one hand is used, the free arm hangs naturally.*

(i) *The neck is erect without stiffness, the head and chin high.*

The naturally erect position of body and spine described in (c), is continued in the neck. Contraction of the neck quickly communicates itself to other parts of the body and must be avoided. If the neck is carried forward the resulting tendency is to round the shoulders and convex the spine to the rear, both of which positions are faulty, unsightly and unmilitary. The chin is held high without being thrust out.

(j) *The eyes look to the front.*

This is normal for the soldier at attention, enabling him to occupy himself with the mission of the moment. A horse's movements are sensed by "*feel*," not sight. Therefore, the rider *does not fasten his eyes on his horse*. This bad habit results in hanging the head and humping the back, thus making balance difficult and often destroying the whole seat.

III. *Position mounted, horse in movement.*

(a) *Balance.*

When a rider so disposes his weight as to require the minimum of muscular effort to remain in his seat, and when the weight distribution interferes least with the horse's movement and balance, the rider is commonly said to be "*with his horse*" or "*in balance*." This condition of being "*with the horse*" is the keynote of riding.

When passing from the halt to motion, and when the horse is moving, the seat undergoes certain modifications. The rider must assume positions which assure his retention of balance and keep him "*with his horse*." The knees, legs and to a great extent, the thighs, remain fixed in position. The upper body, the unstable part of the rider's mass, remains in balance over its base of support by appropriate variations in its degree of inclination, and thus overcomes the disturbing reactions produced by the horse's movements.

Any change in body inclination modifies the distribution of weight among the members of the base of support, and in extreme cases, the base itself. As inclination increases, the center of gravity is carried forward and downward; there is a decrease in weight borne by the buttocks and a corresponding increase in that borne by the thighs, knees and stirrups until finally, in racing and high jumping, the knees and stirrups in certain phases support almost the entire load.

(b) *Inclination of the upper body.*

(1) *In forward movement* the degree of forward inclination of the upper body must always be just sufficient to prevent the rider's center of gravity (more accurately, the center of gravity of those parts of the rider above his knees and not in contact with the saddle) from falling behind its base of support. (Section A-I). When his center of gravity falls behind its base of support, the rider is not "*with*" but "*behind*" his horse.

(2) *The upper body is inclined forward as a whole from the hip joints. The back does not break to the rear at the loins, but retains its normal posture. The chin is lifted in order that the back may retain its unbroken line and the field of vision be not reduced. To allow the back to break rearward at the loins, and to permit the shoulders and head to drop forward, usually tends to loss of balance to the rear, and to "cantle-pounding."*

(3) *Suppleness, muscular control* and the resultant opening and closing of the joint-angles supplement the body inclination and enable the skilled rider *"to be and to remain with his horse."* In the case of *unexpected movements*, such as shying, which tend to unbalance and unseat the rider, *security is provided by grip of the calves* of the legs and in extreme cases, such as refusing, by grip of the knees also, until balance has been restored.

(c) *The upper body, at the various gaits.*

(1) *When passing from the halt to the various gaits, when changing gaits or rates, the degree of inclination of the upper body is dependent upon the suddenness of the change. In increasing gaits, the inclination is sufficient to prevent the center of gravity of the upper body from falling in rear of the points of the buttocks. In decreasing gaits, the body becomes more erect in order that its center of gravity may remain in rear of the knees. In either case, the change in position is reduced to the minimum required for remaining in balance. At the various gaits, the inclination of the upper body increases with the rate until at high speed, the buttocks are frankly out of the saddle. The crotch never excessively leaves the saddle.*

(2) *At the walk* the seat is almost as described under Position Mounted at the Halt. The sole difference is a *slightly increased forward inclination* of the upper body and consequent increase in weight borne upon the thighs and stirrups. Despite the constant tendency to drift to the rear (caused by the horse's forward movement) the rider remains *in balance*. Thus seated, he neither slouches nor concentrates his weight on the cantle, nor gets *"behind his horse."* The upper body has the same generally *erect appearance as that of the soldier dismounted at attention.*

(3) *At the slow trot, or trot, with or without stirrups (not posting), the body remains erect with just sufficient forward inclination to keep its center of gravity over its base of support. The rider is "with his horse," not "behind him" and pulling on the reins to maintain balance. The forward inclination is slightly greater than when at the walk, but the rider has the appearance of sitting very erect.*

(4) *At the posting trot* the rider's center of gravity undergoes more varied displacement than during any other gait. The length of his base of support varies from the maximum (when he is in the saddle) to the minimum (his knees and stirrups, when he is at the top of his ascent). His body moves upward and forward, and downward and *backward* in synchronization with the beats of the gait. In order to be in line with the thrust received from the horse's hindquarters, a greater inclination of the upper body is required than

when galloping at a slow rate. The upper body maintains its posture unchanged as the rider comes into the saddle at each alternate beat of the trot; the entire spine retains its natural line at all times without sinking rearward at the loin. The chin is raised so that the plane of the face remains vertical. The rider sinks into the saddle very lightly on the upper thighs and crotch, the points of the buttocks barely touching the saddle at each beat.

(5) *At the canter or slow gallop* the body is inclined slightly more forward than at the walk or slow trot. The inclination is not exaggerated; it is merely sufficient to insure balance. At each beat of the gallop that part of the rider's weight coming onto this thighs automatically forces the *relaxed knees* downward, and they in turn transmit weight through the relaxed ankles onto the stirrups; the heels are low; the legs maintain their prescribed position without muscular effort; *the rider makes no attempt to keep the end of his spine or the fleshy part of his buttocks in constant unyielding contact with the saddle.* Constant contact can only be maintained by breaking to the rear at the loin or leaning backward, thus concentrating weight on the cante; the rider is then behind his horse and rides "*heavy*" instead of "*light*."

(6) *At the fast gallop* as in charging, maneuvering, saber work, etc., the body is inclined further forward with the buttocks out of the saddle. Consequently the weight is on the thighs, knees and stirrups, eliminating "*pounding*" the saddle, and giving ease and freedom to both horse and rider. Rounding the back and loin entails loss of muscular control of the upper body and results in loss of balance.

If balance is lost to the rear, the rider is "*behind his horse*" and sits heavily on his horse's loins; if lost to the front, he is inclined to stand in his stirrups and maintain himself by placing his hands on his horse's neck. Being "*behind the horse*" makes his galloping laborious and painful and places the military rider in an unfavorable position for employing his weapons. When riding entirely "*in his stirrups*" the seat is insecure and the rider has difficulty in using his hands to control his horse or to handle his weapons.

Keeping the head, chin and chest up aids materially in maintaining the correct position of the back and loin. The legs are in close contact with the horse and the knees and heels sink at each stride, absorbing part of the shock and fixing the rider securely in the saddle.

(7) *In decreasing rates and gaits, in halting and in backing, the rider does not lean back.* The forward inclination of the upper body decreases with the rate to enable the rider to remain in balance with

his horse. The upper body is never in rear of the vertical except in an emergency occasioned by unexpected movements of the horse.

IV. *Summary.*

In the assumption and maintenance of the correct seat, the various parts of the body are interdependent. Stiffness, contraction, or derangement of one part inevitably harmfully reacts on another. The buttocks are the corner-stone of the rider's base of support, and are first placed. When properly placed, the rider has the sensation that their points are almost in contact with the saddle; their fleshy portion is in rear of their points, and is never a part of the seat. The time-worn expression "*Tuck your buttocks under you*" is misleading and causes some riders, in an attempt to obey, to sit, not upon the points of their buttocks, but upon their fleshy portion; such a position is the direct cause of many faults of seat. To sit upon this fleshy portion tends to produce insecurity by causing the rider to "*roll*" on the saddle, to bow his back to the rear at the loins, to raise his knees, to derange his thighs, and to get "*behind his horse*," all unsightly and insecure. If the rider sits too far forward of the points of his buttocks, he is on his crotch with all of the attendant faults. Sitting on the crotch usually occurs when riding without stirrups or when stirrups are too long. The inclination and posture combined of the upper body largely determine the manner in which a rider sits upon the saddle. With the points of the buttocks resting in the saddle, its throat deep in the rider's crotch, the weight of the naturally erect and correctly inclined upper body tends to force the thighs downward into their proper position. The thighs and length of stirrups fix the position of the knees. If the upper body is not properly placed and inclined, the lower members are not correctly placed, do not bear their proper proportion of weight, and insecurity results. Similarly, rounded shoulders, or a hanging head react harmfully on the upper body.

The knees are relaxed, flexed and always as *low* as the particular length of stirrup will permit. In short, the rider is *seated* in the saddle, not *on* it. Due to his relaxed, flexed and low knees, he does not stand in his stirrups or give that impression. His stirrups are neither too *short* nor too *long*; and consequently his knees are neither too high and excessively flexed, nor too low and excessively straight and stiff. His upper body is always naturally erect and inclined to the front from the hip joints only so much as the reactions of the moment require. His delicate sense of balance aided by the correct distribution of his weight, his muscular control, his relaxed and supple joints give him the feel that at each grounding of the horse's feet in his stride, he is thrust deeper and more securely *into* the saddle.

SECTION B

HUNTING, CROSS-COUNTRY RIDING, RACING,
STEEPLECHASINGI. *Hunting and cross-country riding.*

The military seat is well adapted to hunting and cross-country riding. No changes are necessary.

II. *Flat racing.*

Racing is a special form of riding. The speed element demands that, for maximum result, the horse have great liberty of body movement and an advanced center of gravity. The rider consequently rises out of his saddle and supports himself almost entirely with his stirrups, knees and reins. He advances and lowers his center of gravity over this shortened base of support by an extreme forward inclination of upper body, his back maintaining its normal posture. (See *Section A-III* and diagram and explanation, *Section C*). This position over a shortened base of support (due to buttocks being out of the saddle) entails lack of stability and renders maintenance of balance more difficult. But it insures to the horse greater freedom in his gallop and advances and lowers the center of gravity of the rider, bringing it nearer to that of the horse—a condition favoring speed.

III. *Steeplechasing.*

The position of the rider in steeplechasing is less extreme than in flat racing. It is determined only after much experience and depends upon the individual, the horse and the course to be negotiated. Security over jumps is necessary. Therefore, as compared to the racing seat, speed requirements on position are disregarded just enough to attain this end. (See *Section B-II*). The rider's base of support is lengthened by closer contact of thighs and at times even of buttocks. Forward inclination of the body consequently is not so extreme. Security is usually provided by slightly longer stirrups than in flat racing, permitting better leg grip, but stirrups are always shorter and the body inclined farther to the front than in the military seat. (See *Section A-III* and *Section C*). The rider can rise easily from his saddle and support his weight on stirrups and knees while galloping on the flat, and can also "*sit close*" as an obstacle is approached, to be with his horse, to feel him better, and to have greater security.

IV. *Summary.*

The demands of balance and security govern any form of riding and the seat is modified as one becomes more important than the other. The military seat requires great security as well as ability to

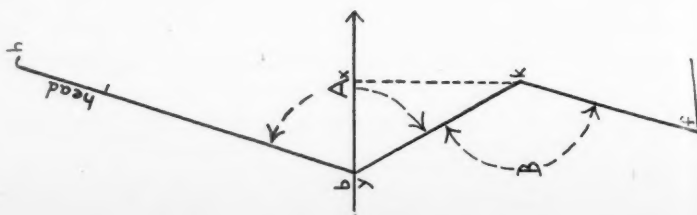
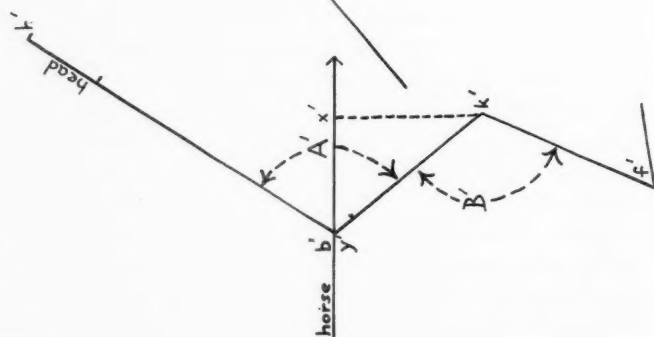
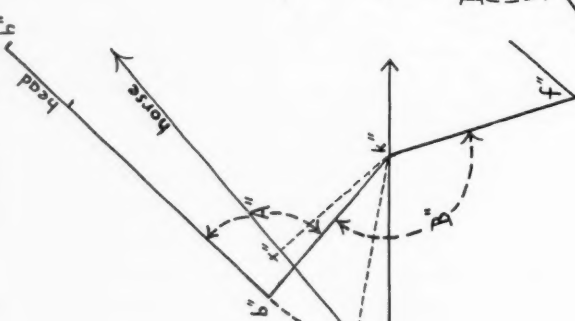
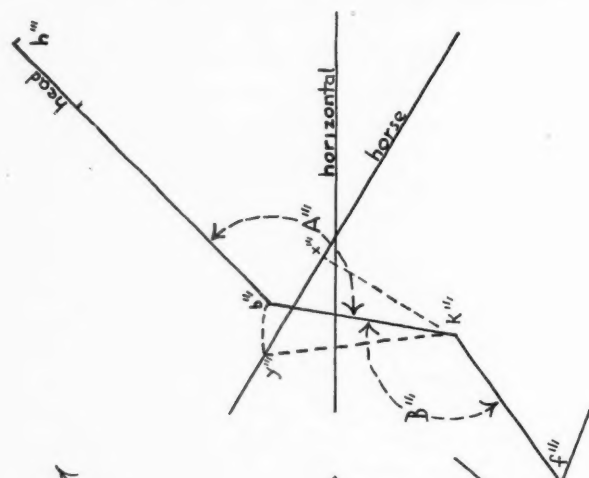
FIG. 1
MILITARY STIRRUPFIG. 2
JUMPING STIRRUP

FIG. 3 - TAKE-OFF

FIG. 4
LANDING

Angle A is formed by trunk and thigh.
Angle B is formed by thigh and leg.
x-y represents horse's back.

h-b represents rider's trunk.
b-k represents rider's thigh.
k-f represents rider's leg.

jump and gallop across country; hence its long base of support to preserve balance, and its moderate stirrup length to give good leg grip and resultant security.

The steeplechase seat subordinates security, to a certain extent, to speed. The stirrup is shorter than in the military seat; the base of support is shortened as the buttocks leave the saddle, and as the body inclines farther to the front to maintain its center of gravity over this shortened base.

In flat racing, the jockey subordinates everything to speed. His stirrup is extremely short; he maintains his seat by knees, stirrups and reins. His body reaches the maximum forward inclination as it seeks to maintain its center of gravity over its shortened base of support.

SECTION C JUMPING

(a) *The seat.*

(1) *Military jumping.*—The military seat, without modification, is admirably suited to such jumping as is normally encountered in military work, hunting and cross-country riding. It is also the seat employed in horse show jumping, except for a shortened stirrup. The principles enumerated below for *horse show jumping* are equally applicable to military jumping.

(2) *In horse show jumping*, when large obstacles are encountered, the *military seat* is so modified as to give greatest mechanical advantage to both horse and rider. *This change consists merely in a shortened stirrup.* Security is thereby lessened, but is no longer paramount, as the horse is presumably well trained and jumps freely. *The rider depends on balance* rather than leg grip to maintain his seat.

(b) *Mechanical principles.*

(1) *Explanation of diagrams.*—The accompanying diagrams will aid in explaining the advantages derived from shortening the stirrups when jumping difficult obstacles and in such specialized riding as steeplechasing and racing.

For the purpose of discussion, it is assumed that the knee (k) in Fig. 1 is always at a fixed perpendicular distance from the horse's back (x-y) for any given length of stirrup. This is approximately true except for slight movements of the saddle on the horse and insignificant movements of the knee due to sudden reactions. The rider's leg is also considered fixed in its position against the horse's side. This fixity is not absolute, but is the ideal sought.

(2) *Balance and functioning of joints.*—In jumping, as in all riding, *balance*, or as it is frequently expressed, "*being with the horse*" is the *predominating factor*. Maintenance of balance in jumping is largely dependent: first, on an initial proper forward inclination of the upper body which insures being in the expected line of thrust; then, on the proper functioning of the knee and hip joints, resulting from their relaxation; and, finally, on the rider's muscular control of his body which counterbalances the reactions caused by the violent movements of the horse.

In Fig. 2 angles (A') and (B') represent conditions just prior to the take-off. In Fig. 3, which represents the take-off, angle (B') has opened to (B'') and (A') has closed to (A''), as the rider is thrust upward and forward by the horse's effort. In Fig. 4 the horse is descending after clearing the obstacle; angle (A''') is very large and (B''') is closed again.

(3) *Changes in base of support.*—In order to analyze some of the rider's problems in maintaining balance during a jump, the fact must be borne in mind that as his seat leaves the saddle at the take-off, the horizontal length of his base of support is diminished and advanced. This horizontal length varies from a maximum which is the horizontal distance between (b') and (k') Fig. 2, when the rider is fully seated at the take-off, to a minimum which is the horizontal distance between (k'') and (f'') Fig. 3, when the rider is well out of his saddle and supporting practically all his weight on his lower thighs, knees and stirrups. *This latter condition should exist after the take-off, throughout the jump and until the horse has reestablished his normal gallop.*

(4) *The horse's movement.*—In horse show jumping, the horse must often make his maximum effort, and his rider consequently must give him maximum liberty of all his powers while so doing. This is accomplished when there is a minimum of interference on the part of the rider with the loin, mouth and balance of the horse. In other words, he "*allows the horse to do the jumping.*"

The horse aids himself in clearing an obstacle by movements of the head and neck. These movements produce certain interior forces which react on his mass. The initial impulsion of the take-off throws the rider's weight forward on to his lower thighs, knees and stirrups. If his buttocks fall back into the saddle while the horse is striving to clear the obstacle, this added weight tends to nullify the effect of the horse's head and neck movements in lifting his quarters, and he commits faults behind. In this case the rider has lost balance to the rear and has interfered with the horse's effort. In landing, if the rider's seat falls back into the saddle, he disturbs the horse in his

attempt to reestablish his normal gallop, and hurts his loin. This teaches him to fear jumping and to rush wildly away after landing.

(5) *Effects produced by length of stirrups.*—Comparing Figures 1 and 2 it is seen that with the shorter stirrup, as in 2, the knees are higher and farther to the front. Thus the rider's base of support ($b' - k' - f'$) has been lengthened horizontally. The more the stirrups are shortened, the greater this increased length, and the more the upper body must be inclined to the front from the hip joints in order that its center of gravity rest always over the center, or *slightly in advance* of the center of its base of support.

Also, since the knee is farther to the front, the horizontal distance ($k' - f'$) between knee and stirrup has been lengthened, provided the stirrup strap always remains vertical. This horizontal distance between knee and stirrup determines the length of the rider's base of support *when his buttocks are out of the saddle*, as in fast galloping (Section A-III C) and (Section B) and *during a jump*. Thus a shortened stirrup provides a longer base over which muscular control acts in maintaining balance, and the rider finds it easier to keep his equilibrium during the most critical phases of a jump, while his buttocks are out of the saddle. It must be borne in mind that while a short stirrup lengthens the base of support, it diminishes ability to grip with the legs and so lessens security in unanticipated movements of the horse, especially in lateral directions.

A further result of a shortened stirrup is the closing of the knee angle (k), consequently permitting it to open over a larger arc when necessary. This liberty of action afforded the knee joint greatly aids the rider in exerting the muscular control of the upper body necessary to remain in perfect balance over the jump and when landing, and assists him in keeping his weight off his horse's loin. Since the knee is higher with the shortened stirrup, the danger of losing balance to the front by pivoting the upper body over it is greatly diminished. If the stirrup is too long, the rider's leg will rotate backward and upward while jumping, lessening security and irritating the horse.

(6) *Inclination of the upper body.*—The increased forward inclination of the upper body required by short stirrups, paragraph (5) above, is of immense advantage when jumping, allowing the rider readily to change from his maximum base of support when seated ($b' - k' - f'$) to his minimum and most advanced base when out of the saddle and supported mainly by knees and stirrups ($k'' - f''$). The position entailed by this *most advanced base*, assumed as a result of the take-off, is held until the horse begins his descent. See (c) (14) and (15). The rider approaches the jump *seated*. At the take-off his buttocks are thrown upward and forward by the thrust of the horse's

hindquarters; his upper body during the approach, while still seated in the saddle, Fig. 2, has sufficient forward inclination to insure its center of gravity being in line with the direction of the horse's thrust and slightly in advance of the center of its base of support ($k' - b'$). If the forward inclination is not sufficient, *or if the back is humped, not straight*, the line of thrust passes beneath the center of gravity of the rider's upper body, and he rocks to the rear, or breaks badly at the loins, and is "*behind his horse*," or as frequently said, "*his horse jumps from under him*."

(c) *Essential points in jumping.*

The following essential points should be borne in mind when jumping:

(1) *The military jumping seat* is the military seat as prescribed with the horse in motion (Section A-III). The *horse show jumping seat* is the same seat with shortened stirrups and the resulting greater forward inclination of the upper body to keep in balance.

(2) *Short stirrups are a positive disadvantage if the correct seat is not taken.*

(3) Stirrup straps are always vertical.

(4) Saddle is deep in the rider's crotch, *fleshy part of the buttocks to the rear of, and not under the rider.*

(5) *Thighs, knees and heels are forced down* to the limit allowed by the length of the stirrup straps.

(6) The calves of the legs are always against the horse.

(7) The upper body is inclined forward from the hips. The spine retains its natural line at all times, without sinking rearward at the loins. *The loins remain under muscular control. They are not limp. The chest is lifted and well to the front.*

(8) *Head, chin and eyes are up.* The rider's horizon remains practically unchanged. Holding the chin up assists greatly in maintaining correct spinal posture and muscular control of upper body.

(9) *Arms, shoulders and fingers are quiet* and entirely relaxed a few strides before the take-off and remain so until the horse has reestablished his galloping stride on the far side of the obstacle.

(10) *As the horse starts his approach*, often somewhat abruptly, the rider's body is inclined forward sufficiently to keep in balance. It is disastrous to fall *behind him*. Being in balance, the rider remains absolutely quiet and his position unchanged during the final strides of the approach and at the moment of take-off. *Only the legs work as required*, and as stated above are never entirely passive. Thrusting the body forward or sinking backward at the loin at the moment of take-off must be avoided.

(11) *During the last few strides of the approach and during the*

process of the take-off, the hands are absolutely passive and their contact is light. The horse, like the athlete, must concentrate on measuring his stride and clearing the obstacle. Any movement of hands or shifting of rider's weight at this time will distract his attention and upset his balance, thus diminishing greatly his chances for a good performance. This is particularly true when the horse seems to be "in wrong." Then the rider's greatest care must be to "sit quiet" with hands passive, and "let the horse do his jumping."

(12) If the rider's position is correct at the take-off, he is thrown slightly forward and upward without voluntary effort. The knee angles open and the hip angles close.

(13) *Over the jump* buttocks are kept out of the saddle by rider's balancing on his lower thighs, knees and stirrups. *Loin and back must not hump over*, as muscular control of trunk and balance are then lost, causing the rider to fall back into the saddle, or forward on the neck of his horse.

(14) During the descent and in landing, the forward inclination of the upper body is progressively and gradually decreased to avoid losing balance and falling forward on the horse's neck; the hip angles open; the knee angles close; the rider is preparing to resume his seat.

(15) In landing the shock is progressively received on thighs, knees and stirrups—on the last through the ankles, necessitating low heels. The upper body must neither fall forward nor crumple backward. It is prevented from falling forward by the correct amount of inclination, assisted by muscular efforts of the back, lower thighs, knees and legs; it is prevented from falling backward by correct inclination, and by keeping the posture of the loin and back unchanged. Head and chin are kept high. For a few strides, the rider continues to support himself on lower thighs, knees and stirrups; then he relaxes the knees and settles *gently* into the saddle.

(16) *Chest up and body forward! Hands soft and elastic! Legs always active! Balance!*

The Swedish Cavalry School

By LIEUTENANT MILES FLACH, *Swedish Cavalry*

THE ART of riding is one that cannot come to a high standard within a short period of time: it needs many years and a developed tradition, to reach perfection. In England hunting and racing have been going on for centuries, and I dare say there is no other country where such horsemanship is to be seen. In other European countries the cavalry has been the carrier of the traditions of horsemanship. The method of training a horse has changed in the same degree as the cavalry has changed its mode of fighting; thus the system of training in our day strives to produce a horse that is entirely obedient and able to carry the weight of saddle and rider at a swift pace for long distances and over every sort of country.

The Swedish cavalry is of very old origin. In 1925, three of the then existing regiments were over 400 years old and the rest from 300 to 150 years. Our traditions of horse-breeding, riding and horsemanship have thus been preserved in the cavalry for 400 years or more.

Since the reduction of the army in 1925 four cavalry regiments remain, with a total of seventeen squadrons.

The Cavalry Riding School is at Strömsholm, a royal castle ninety miles from Stockholm. Here cavalry officers in the second year of their service, together with a certain number of officers of the artillery, train and engineers, are sent to receive their training as riders and as instructors. Since 1868 cavalry officers have received their instruction at this school. The course begins the first of September and continues until the middle of July the following year.

The mission of the school is to produce good riders and instructors, combining bold and fearless riding with a thorough knowledge of the care, conservation, capabilities and limitations of the horse. The student is further trained in the tactics and technique of the cavalry branch, in troop-leading, in the management of training, and in the use of cavalry weapons.

Each officer ordered to the school brings two service horses, one of which is intended to be trained as a good troop horse and for taking part in jumping and military competitions, the other one for steeple-chasing. At the school each officer receives two remounts and two horses for the dressage. Of the two remounts, one has come



Part of the Field During a Hunt

The officer on the right, just behind the leader, is the author, Lt. Miles Flach

directly from the depot, while the other has just completed one year's instruction and training. The other two horses, called school-horses, are well trained older horses, which in fact serve as instructors for the riders. Thus each officer rides six horses of different quality, from the young raw horse up to the very best ready trained school horse.

The day's work at the school will generally be about as follows from six o'clock A. M.:

- $\frac{3}{4}$ hour gymnastics: fencing, boxing;
- 4 hours riding from 7 until 11 o'clock;
- 3 hours riding from 1 until 4 o'clock;
- $1\frac{1}{2}$ hour tactics, veterinary or other theoretical instruction.

By this it is plainly seen that the young officer is kept hard at work, and is made fit—sometimes almost too fit. Strömsholm is a place of hard work, but at the same time the year there is the most amusing and the gayest of a young officer's career, and there is no prohibition.

From September until the first days of November is the hunting season. The hunts are drag-hunts, and generally take place twice a week without regard to the weather. For hunting one of the two service horses and the school horses are used.

Unfortunately it is impossible to have real fox hunting in Sweden. There are not enough foxes, and the country is not suited



A Canter on the Ice

to it. Cultivation prevents riding on most of the fields all the year except one month or two in the Autumn, and also between the fields there often are stony and wood-covered hills and marshes that make it very difficult for the riders to follow the hounds. With drag-hunts it is possible to lead the field over the best ground, and the master can regulate the degree of difficulty of the hunt in proportion to the quality and training of the horses and riders, which is a great advantage at a riding-school. The hunting season ends every year on the day of St. Hubertus, the third of November. On that day there is a grand meet at Strömsholm with excellent hunting. At the end of the day everybody gets together and the evening is spent with much gaiety at the castle.

After the St. Hubertus day, during the winter, occasional hunts take place on the ice and in the snow.

At New Year the training of the race horses begins.

A most excellent place for cantering is found on the frozen lakes



Steeple-chasing in Snow



Finish of St. Hubertus Day Hunt, November 3, 1929

where the ice gives a smooth and elastic floor to ride upon, and in addition, there is usually a foot of snow. This winter training period terminates toward the end of February with steeple-chasing and jumping competitions in the snow. The steeple-chases are ridden on the ice, and the fences are usually hurdles and packed snow walls of a height of three feet and dressed with small branches of fir, making the whole height of the fence about four feet.

Among other competitions during the Winter period worth mentioning is a reconnoitering ride by night, the length of which generally is about twenty miles. As the Winter nights are very long and dark, and as the snow fills up all ditches, this competition is a very adventurous one. But thanks to the snow and the frozen lakes the risk of damage to horses or riders is very small. The riders start with an interval of ten minutes, and have to find four or five controls. The one that passes the controls quickest and reaches the goal is the winner.

The next and last period is the training and *concours* period. In the beginning of April the training for steeplechasing and jumping competitions begins, and during May, June and July the officers of the school are allowed to take part in the *concours* and steeple-chases in different parts of the country—always on their own service-horses. As before mentioned, one of these was intended for racing, the other for jumping and military use.

During all this time the training of the two young remounts has been going on. All cavalry horses are bred in the country and are

bought at the age of three years. The first year these young horses are put together at different dépôts and are distributed to the regiments at the age of four. In the Autumn of his fourth year the training begins and continues on for two years, so that he becomes a trained troop-horse at the age of nearly seven. In that way the training is divided into two periods, each period one year, and the remounts are for that reason divided into first and second year remounts.

After a year at the Riding School a student has trained one horse of each category, and in order to keep up the ability to train young horses, each subaltern of a regiment has to train a remount of his squadron each year.

The school horses are intended to teach the pupils the dressage—*haute école*. These horses are all trained to change of lead, piaffer and some of them to the passage. All of them are at the same time excellent hunters.

This system of instructing the cavalry officers on horses of different categories, from the raw youngster to the trained troop horse, from the steepler to the school horse, has always given excellent results: all around riders and good horsemen. For such officers as show a special interest in riding, there is an instructor's course going on during the same time as the normal course, and in order to become a teacher at the school, there is a third year's course.

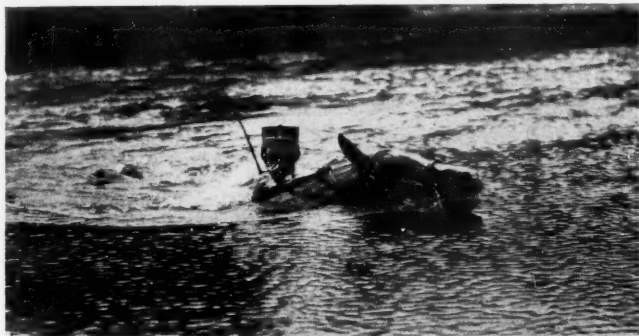
During the last twenty years most of the teachers have also re-



Instruction Method to Test the "Feel" of the Reins

ceived instruction at and studied the principles of the foreign riding schools at Hanover, Vienna, Saumur and Pinerolo, and the best of these principles have been incorporated in the Swedish system of riding and training.

The results of the system have been tested several times at international competitions and generally with success, considering the comparatively small number of riders, and that all horses always have been ridden and trained by their owners. For economic reasons participation in international competitions has been limited to the



There is Much of This Sort of Training at Stromsholm

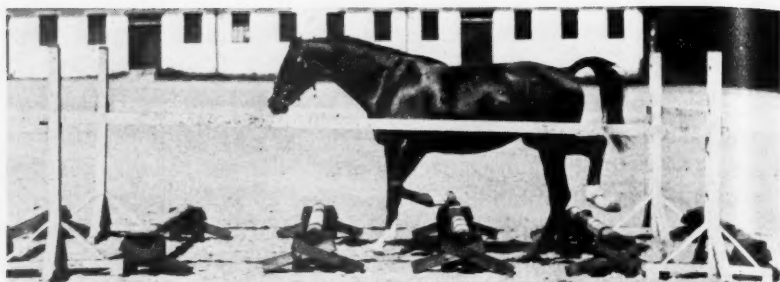
Olympic Games and to occasional shows in other places, as The Olympia Horse Show in London, the more important meets in Germany and the Scandinavian countries and once at Nice in 1923.

In 1920 at the Olympic Games in Antwerp the Swedish team won the first prize in the military and the jumping competitions. Individual Swedish officers won first and second prizes in the military, third prize in the jumping competition and first, second and third in the dressage.* All horses, except one, were homebred horses, most of them service horses of their riders. The same year the Prince of Wales' Cup was won in London.

At Paris in 1924 the teams won the first prize in the military and the jumping competitions. Individually the first, second, fourth and fifth prizes in the dressage were won. All horses, except the winners of the first and the fourth prizes in the dressage, were home-bred.

At the last Olympic Games in Amsterdam the teams won second

*Excellent pictures of Swedish officers schooling and training a dressage prospect for the 1932 Olympic Games are used as illustrations in the article on "Schooling Events of the 1932 Olympic Games" by Major W. M. Grimes in this issue.—EDITOR.



The "Cavalletti"—an Italian Method of Training Found Valuable by the Swedish Army

prize in the dressage and third prize in the jumping competition behind Spain and Poland. This year all horses were home-bred.

Considering that the home bred Swedish service horse is not to be compared in class and quality to the Continental and English hunters and thoroughbreds, the results of these international competitions tend to demonstrate the competence of the Swedish system and of the principles of the instruction at the Cavalry Riding School at Strömsholm.



Schooling Events of the 1932 Olympic Games

By MAJOR W. M. GRIMES, *Cavalry*

THERE are two schooling competitions scheduled for the equestrian events of the 1932 Olympic Games. Before discussing these two competitions, it might be well to describe briefly the equestrian events, in which the art of schooling is required. These events are as follows:

1. The *Equestrian Championship*, commonly known in the service as the "Three-Day" event. This competition consists of three distinct contests, held on three consecutive days:

1st Day—Schooling competition, consisting of various prescribed school movements held in an outdoor schooling ring.

2nd Day—Endurance test, consisting of work partly on roads, pathways, cross country, and over a steeplechase course.

3rd Day—Jumping: this is not an ordinary horse show event or a contest of skill or power; rather it is intended to demonstrate that on the day after the severe effort the horses that have been entered still retain a degree of energy and suppleness.

2. The *Individual Training Competition*, commonly referred to as the "Dressage" or "Schooling" event. This competition consists of various prescribed school movements held in an outdoor schooling ring; if circumstances require, this event may be held in the riding hall.

The Art of Schooling

The art of schooling is fast disappearing in our service; schooling a horse has fallen into the discard and is confined to a comparatively few individuals. As proof of this statement it is believed that on the fingers of one hand, exclusive of the thumb, can be counted the names of our officers who are qualified to school and exhibit a Dressage prospect. As additional proof of the lack of knowledge and interest in schooling it is doubtful if many readers of this article know the meaning, except in a very general way, of such terms as the "Passage," the "Piaffer," and the "Pirouette." On the other hand the value of schooling has always been recognized in Europe; it still plays an important part in all Continental equestrian schools.

Past Olympics

In past Olympics our entries have been confined almost exclusively to the Prix des Nations (Jumping Competition) and the Equestrian Championship.

Only twice have we entered the Dressage or schooling competition. In 1912, at Stockholm, Colonel Guy V. Henry, Cavalry (then Captain) and Colonel J. C. Montgomery (then First Lieutenant, 7th Cavalry) entered and rode *Chiswell* and *Deceive* in the Prize Riding Competition of those games. *Chiswell* put up a remarkable performance of schooling. However, *Chiswell* as a horse did not rank with the magnificent animals exhibited by the European competitors. In 1920, at Antwerp, we again entered a Dressage team, consisting of Majors Barry, Doak and Chamberlin, riding *Sin Glen*, *Chiswell* and *Harebell* respectively.

We did not enter the Dressage events in the 1924 or 1928 Olympic Games. In the 1932 Games at Los Angeles the American Army will enter the Dressage competition.

The International Equestrian Federation

It may be of interest to know that the rules and regulations governing the conditions of the equestrian events at the Olympic Games are drawn up by what is known as the "International Equestrian Federation." This is an organization composed of the representatives of various affiliated National Equestrian Federations. The United States has a representative, appointed by the Chief of Cavalry, who attends the meetings of the federation. In April of the past year the federation met in Paris and drew up new general regulations for the International Equestrian Federation. It is expected that these new regulations will be issued in January, 1930; they will set forth in detail the conditions for the equestrian events of the 1932 games.

European Interests in Schooling Competitions

In order to create and continue interest in the Individual Training Competition (Dressage), and to give the various nations a chance to meet oftener than every four years, the International Equestrian Federation has decided to hold a concours of Individual Dressage for 1930. This competition will take place at Lucerne under the auspices of the Swiss Federation, July 5-13. This will be of tremendous interest to all foreign nations who contemplate entering a team in the Dressage event at Los Angeles in 1932. The Lucerne competition will furnish excellent training for Dressage teams and, likewise, will enable each team to obtain first-hand knowledge of competitors. The movements

to be held at Lucerne were drawn up by the Equestrian Federation. These movements, by the way, are practically identical with the movements prescribed for this same competition in the Olympic Games. About the only difference is that the scoring standard for Lucerne has been lowered, so as not to discourage contestants who have only a few months in which to perfect the training of their horses.

Changes in the Schooling Phase, Three-Day Event

The individual schooling of many of the competitors in the Equestrian Championship at Amsterdam in 1928 was not of a high order. In fact, it was so low that the International Equestrian Federation stated that "the poor performance in certain training competitions at the last Olympic Games brought forth the suggestion to eliminate every rider who does not total in this first test one-half plus one of the total number of points." This was not agreed upon but it was decided that the coefficient for the schooling test would be increased so as to penalize more severely the lack of preparation.

This suggestion has been carried out and the new regulations for this event will assign the *schooling phase* of the Equestrian Championship 400 points out of a total of 2,000, ie., 20% is allotted to the schooling phase. The *Endurance Phase* (cross country, steeplechase and road work) is allotted 1,300, and the jumping phase 300 points. In so far as *schooling* is concerned this is an increase of 100 points over the allotted value in the 1928 games. This should prove a boomerang to those nations who decry and neglect schooling and rely on good performances in the endurance and jumping phases to bring up their average.

Changes in the 1932 Dressage

The movements prescribed for the Dressage in the 1932 Games are more difficult than those of 1928. The 1932 requirements include the *Passage*, the *Piaffer*, and the *Pirouette*.

Horses

The question of obtaining suitable types of horses for the Olympic equestrian events has always been a most difficult problem. Practically every account and report on each Olympic that the Army has participated in, decries the lack of suitable horseflesh.

The type of horse required and desired is fully appreciated. Every competing nation faces the same problem. We have not been entirely successful in the solution, namely, acquiring the suitable type in sufficient numbers and in sufficient time properly to train them.

In 1928, the American Army team for the Three-Day event was

unquestionably the best mounted Three-Day team ever entered by our Army, in so far as breeding type and condition were concerned. However, our horses lacked a most essential characteristic: *experience*. Experience is one of the greatest factors in any competition, especially in international equestrian events. The horses of foreign nations gain their showing experience over a comparatively long period of years.

With the possible exception of our jumpers (Prix des Nations string), we will again face Olympic competition with horses having little or no previous experience.

For the Three-Day event we are confronted with the development of an entire new string of horses. In this connection, three of the four horses nominated for this event in the 1928 Olympics were privately-owned officers' mounts; the other was a public mount. It is interesting to note that the three private mounts have all been sold to civilians, and the public mount to a general officer.

As far as the Dressage is concerned, we have no outstanding prospects. Dressage horses require the most exacting training. Schooled horses are not developed overnight. They result from long, painstaking effort in the riding hall—over a period of years. The school movements executed in the Dressage represent the acme of equestrian art. Horse and rider must have reached the height of perfection in skill and training.

The general characteristics of the several types of horses required follow:

Equestrian Championship: calls for a thoroughbred possessing much experience, quality, absolute soundness, demonstrated endurance, staying ability, heart, great courage, flair for jumping and schooling and dependability. One or more of the above characteristics are demanded for each of the schooling, endurance and jumping phases.

Individual Training Competition: calls for a thoroughbred, a model of manners, gaits and appearance; a level-headed disposition and dependable. At least two years' schooling experience; preferably a gelding.

Past Experience

The American Army has entered equestrian teams in four Olympic Games. Certainly we can and should profit by the experience gained in preparation for, and the participation in, these events. If one outstanding lesson can be deduced from our experience, it is our lack of timely preparation and training.

To date, in preparation for the 1932 Olympics, we have been successful in developing a nucleus of riders and horses having consider-

able training and experience in horse show jumping. We have met with considerable success, as witnessed by our performance in Europe last year and at various horse shows in this country, culminating with the wonderful showing made at the National Horse Show at New York City. Unfortunately, however, Olympic equestrian competition is not confined solely to horse show jumping.

We must go farther: we must develop riders and horses for the Dressage and the Three-Day event. Our experience and training for a rider and horse is woefully lacking in the Dressage; likewise it is partly true for the schooling phase of the Equestrian Championship.

A Study of our equestrian efforts in past Olympics discloses the fact that in practically every one of the games the scores of our *schooling* phases have not kept abreast with the scores in our jumping and endurance phases. In other words, there has been a tendency to concentrate more on the jumping and cross country features of training and a consequent lack of proper emphasis being placed on schooling.

Present Task

The present task confronting those charged with the development of a victorious 1932 Olympic Equestrian Team is not an easy one. The problem involves the training of rider and mount in three separate and distinct forms of mounted endeavor, namely, jumping, cross country endurance, and schooling. Of the three, schooling is believed to be the most difficult and the one on which the greatest effort must be made. Of the three principal competitions that make the equestrian events, schooling is the foundation of one event and constitutes a vital factor in another.

Dressage Movements

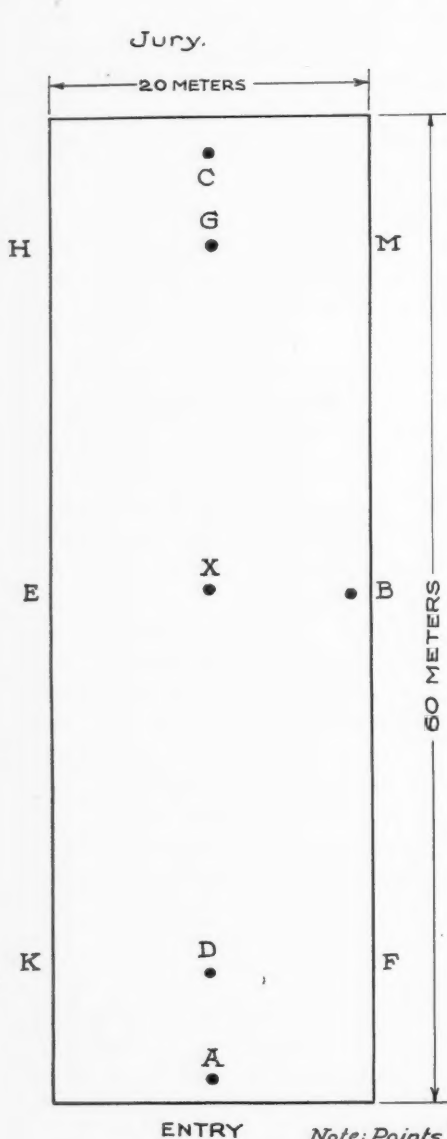
In order to give the reader a general idea of the schooling movements required in the Dressage events of the Olympic Games the following is submitted:*

I

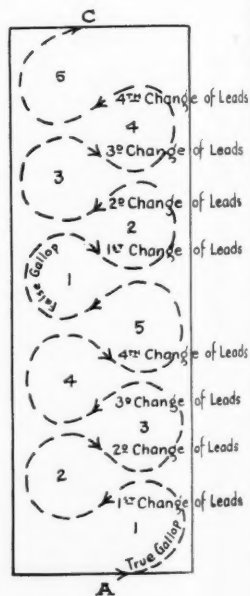
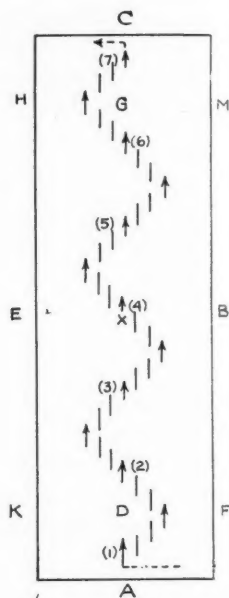
Enter at the gallop. Halt at center. Horse immobile. Salute.

Move forward at the collected trot. Take the track to the right hand.

*This is a translation of the International competition in Individual Schooling prescribed by the International Equestrian Federation for the International Horse Show to be held this summer in Lucerne. This translation was made by Major Harold M. Rayner, Cavalry, Instructor in Horsemastership, The Cavalry School.



Note: Points G, H, M, K, D and F are 8 meters distant from the short side.



Left: Plan of Schooling Track. Upper Right: Movements Prescribed in VII and XVII. Lower Right: Movements Prescribed in XV

II

From M to K—change hands at ordinary posting trot.	
From K to F—Reins in one hand.	
From F to H—Change hands at the extended trot (sit the trot, with reins separated).	
From H to G—Ordinary posting trot.....	15

III

At G—Take up the gallop (normal gallop).	
At M—Change hands, changing leads at center of hall.	
From K to F—Collected gallop.	
From F to H—Change hands, at the normal gallop, reins in one hand, changing leads at center of hall	
At C—Collected gallop, reins separated.....	15

IV

At B—Column right. At the center line column right facing the Jury.	
At G—Halt. Horse immobile 8 seconds.....	10

V

Move forward at the collected trot, track to the right hand.	
After passing M, half turn on the haunches at the walk.	
Collected trot.	
After passing H, half turn on the haunches at the walk.	
Collecting trot	10

VI

From M, X to F—Counterchange of hands two tracking.....	10
At A—Column right.	

VII

Two track seven times to a distance 2 meters each side of the center line, terminating the movement so as to take the track to the left hand at C..	30
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VIII

At E—Column left.	
At X—Halt. Back 3 steps, move forward 6 steps, back 6 steps.	
Move forward at the collected trot.	
(All these movements are made without allowing the horse to come to the halt)	20

IX

At B—Take the track to the left hand.	
From M to H—Executive the 'passage'. (1).	
At H—Change hands at the extended trot.	
At F—Execute the 'passage'. (1).	
At A—Execute the 'Piaffer' from 10 to 20 steps (2).	
From A to E—Execute the 'passage' (1).....	5(1)
At E—Execute the 'piaffer' from 10 to 20 steps (2).....	5(2)
From E to H—Collected trot.....	5

X

At H—Free walk on the right hand as far as B.....	15
At B—Column right, collecting horse.	

At X—Collecting walk.....	15
At E—Track to the left hand.	
At K—Half turn (3 meters radius) two tracking on the diagonal.....	10
At E—Column right.	

XI

At X—Right gallop depart, horse at the collecting gallop.....	5
At A—Column right.	
At G—Half circle to the right (Demi-Pirouette).....	5
At X—Change leads.	
At D—Half circle to the left (Demi-Pirouette).....	5
At X—Change leads.	

XII

At G—Halt, back 6 steps.	
Left gallop depart, horse at collected gallop.....	5
At E—Collected trot.	
At A—Collected gallop.	

XIII

From F, X to M—Counterchange of hands in two tracking, halting with horse immobile at X.....	10
At C—Change leads.	

XIV

From H to K—Extended gallop (1).	
At K—Collected gallop (2).....	5

XV

At A—Serpentine, five loops at the true gallop, changing leads at the middle line of hall; five loops at the false gallop, changing leads at the middle line of the hall. Diameter of loops 8 meters. Terminate the movement so as to take track to the right hand.....	20
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XVI

At M—Extended gallop (1).	
At F—Collected gallop (2).....	5(2)

XVII

At A—Column right. Counterchange of hand two tracking to each side of middle line of hall, changing leads at each change of direction; the first and last two track to be 3 strides, the five others to be 6 strides.....	30
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XVIII

At C—Take the track to the left hand.	
From H to K—Extended gallop (1).....	5(1)
At K—Collected gallop.	

XIX

At A—Column left.	
Between D and X—Circle (pirouette) to the left.....	5
At X—Change leads.	
Between X and G—Circle (pirouette) to the right.....	5
At C—Change leads—Track to the left.	

XX

From H to K—Four changes of lead at each 4 strides.....	5
From F to M—Six changes of lead at each 3 strides.....	5
From H to F—Nine changes of lead at each 2 strides.....	10
From K to M—Fifteen changes of lead at each stride.....	20

XXI

From M to K—Normal gallop on left hand.
At K—Free walk.

XXII

At A—Column left.	
At X—Halt facing the Jury. Salute.....	5
Position, seat, control of horse.....	10

General Rules for Schooling

I. GENERAL PRINCIPLES

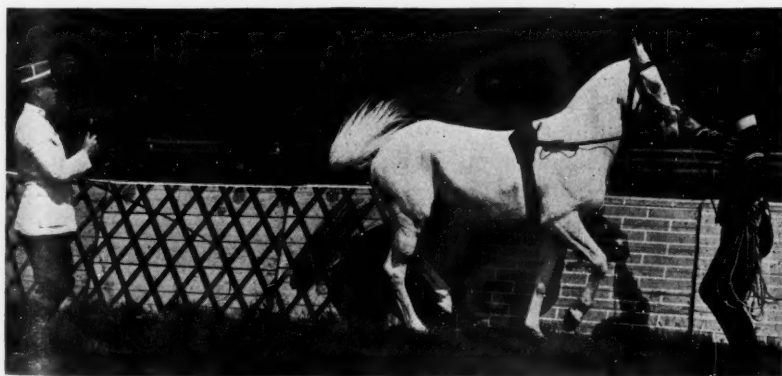
1. The purpose of schooling is to make the horse agreeable to ride, that is to say, alert and submissive.

These qualities are manifested in the freedom of his gaits, the harmony, lightness and ease of movement, and the straight position maintained at all times when mounted.

2. The horse thus gives the impression of controlling himself. Confident and attentive, he yields himself freely to the demands of his rider. His walk is regular, free and extended. His trot is natural, free and rythmical. His gallop is smooth, light and cadenced.

3. His haunches are never inert and hard to move. They respond to the rider's demands, and animate all the other parts of the horse.

Due to his impulsion, and the elasticity of his points, he obeys the various demands of the aids willingly, calmly and precisely.



Abdullah in Training at The Swedish Cavalry School
Instruction in The Piaffer.

II. SPECIAL RULES

1. At the halt and throughout his work, the horse should be in hand.

This is the case when, the hocks being in place under the mass, the neck more or less supported according to the rapidity of the gait, the head properly set and the mouth supple, he offers no resistance to his rider.

2. At the halt the horse, standing squarely on his four legs and motionless, should be ready to move forward at the slightest pressure of the rider's legs.

3. The free walk is a free striding and relaxed walk. The rider allows the horse great liberty of head and neck without losing contact with his mouth. The horse moves freely and calmly with an equal and deliberate stride.

4. At the collected walk, the horse's neck is raised and curved, with his head approaching the vertical and his hind quarters engaged. His gait is slower but is quicker and higher.

5. The ordinary, natural trot is an intermediate gait between the extended and the collected trot. The horse advances freely and straight, in a balanced and relaxed attitude, stretching the reins lightly. The strides should be as nearly equal as possible with the hind feet following exactly the front feet.

6. At the extended trot, the horse extends his stride. The neck stretches out, and the shoulders, driven energetically by the haunches, gain ground to the front without any appreciable increase in elevation.

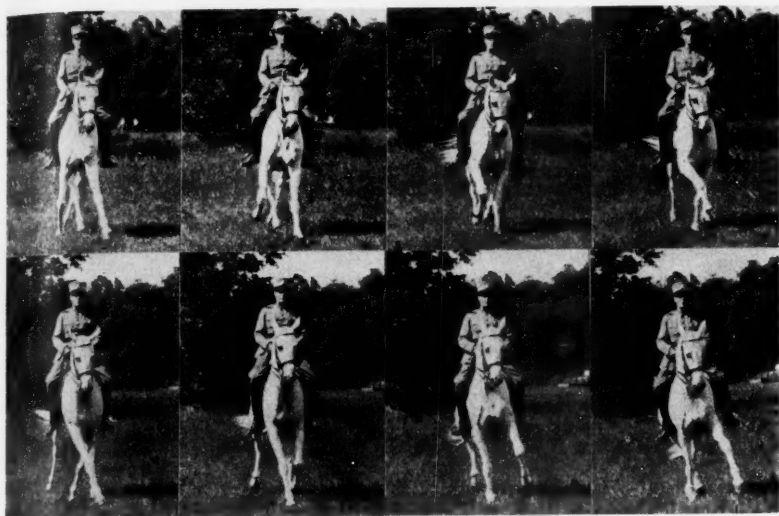
7. At the collected trot, the neck, in raising, allows the shoulders greater liberty of action in all directions; the hocks reaching forward under the mass, maintain the energy of impulsion in spite of a reduced speed. The horse takes shorter steps, but he is more mobile and lighter.

At the ordinary and the extended trot the rider posts, while at the collected trot he sits down in the saddle.

8. The ordinary gallop is an intermediate gait between the extended and the collected gallop. The horse, in his natural equilibrium, advances perfectly straight from head to tail.

9. At the extended gallop, the neck is extended, the end of the nose moves more or less forward and the horse increases the length of his strides without any loss of calmness or lightness.

10. At the collected gallop, the horse's shoulders, well disengaged, are free and mobile; the haunches are active and alive; the instability of the horse increases without however any loss of impulsion.



Abdullah at the Two Track. Captain Sandstrom Up

This will appear as a cut in the new Swedish Regulations to be published in 1930.

At all gaits, a slight mobility of the jaw, without nervousness, is a guarantee of the horse's submission and of the harmonious distribution of his forces.

11. Changes of gait and of speed should always be short, rapid and yet smoothly executed. The original cadence is maintained up to the moment that the horse takes up the new gait—or halts.

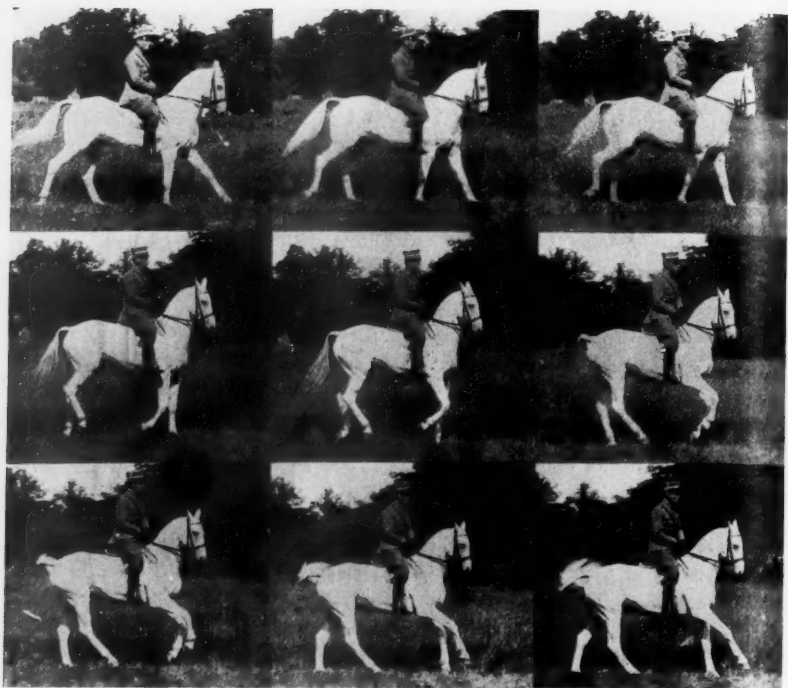
12. In moving forward from backing, the horse should not be brought first to the halt.

13. In changes of direction, the horse may, according to the various Schools of Equitation, remain straight or inclined slightly on the arc of the circle he is describing.

14. In the work on two tracks, the head, neck and shoulders should always precede the haunches. There should be no slackening in the speed. A very slight turning of the head, allowing the horse to see in the direction in which he is moving, increases his grace and assists in freeing the outside shoulder.

In the short counterchanges of hand (zig-zag), the attention of the judges will be directed to the attitude of the horse, the manner in which he crosses his legs, and the precision, suppleness and regularity of his movements. In addition, count is kept of the number of strides executed when at the gallop.

15. In the half turns on the haunches at the walk and in the half



Abdullah at the Change of Lead

This will appear as a cut in the new Swedish Regulations to be published in 1930.

circles (demi-Pirouettes) at the gallop, the shoulders describe a semi-circle around the haunches. They start their movement, without halting, at the moment the hind legs cease to advance, and move forward, without halting, as soon as the movement terminates.

16. At the gallop, the horse changes lead "in the air" in a single stride while advancing. This change of lead is said to take place "in the air" when it is executed during the brief period of suspension which follows each stride at the gallop. The horse should remain straight, calm and light throughout this movement.

17. In order to execute the Serpentine, the rider starts his first loop by gradually leaving the short side. He terminates his last loop by gradually approaching the opposite short side.

18. The Passage is a shortened, very highly collected and cadenced trot, characterized by the very marked flexion of the knees and hocks, and by the gracious elasticity of the movements. Each diagonal, closely united, rises and falls alternately in the same cadence, gaining but little ground to the front and prolonging the period of support.

In principle, the toe of the forefoot and the toe of the hindfoot of the diagonal which is off the ground should rise respectively to a point as high as the middle of the cannon of the other foreleg, and slightly above the fetlock of the other hind leg, of the diagonal which is supporting the horse.

The same Passage can not be demanded of all horses. Some, according to their conformation and temperament, and also to the energy of their impulsion, execute the movement with a wider and rounder action, while others execute it with a quicker and shorter action—but unequal action of the haunches is considered a fault.

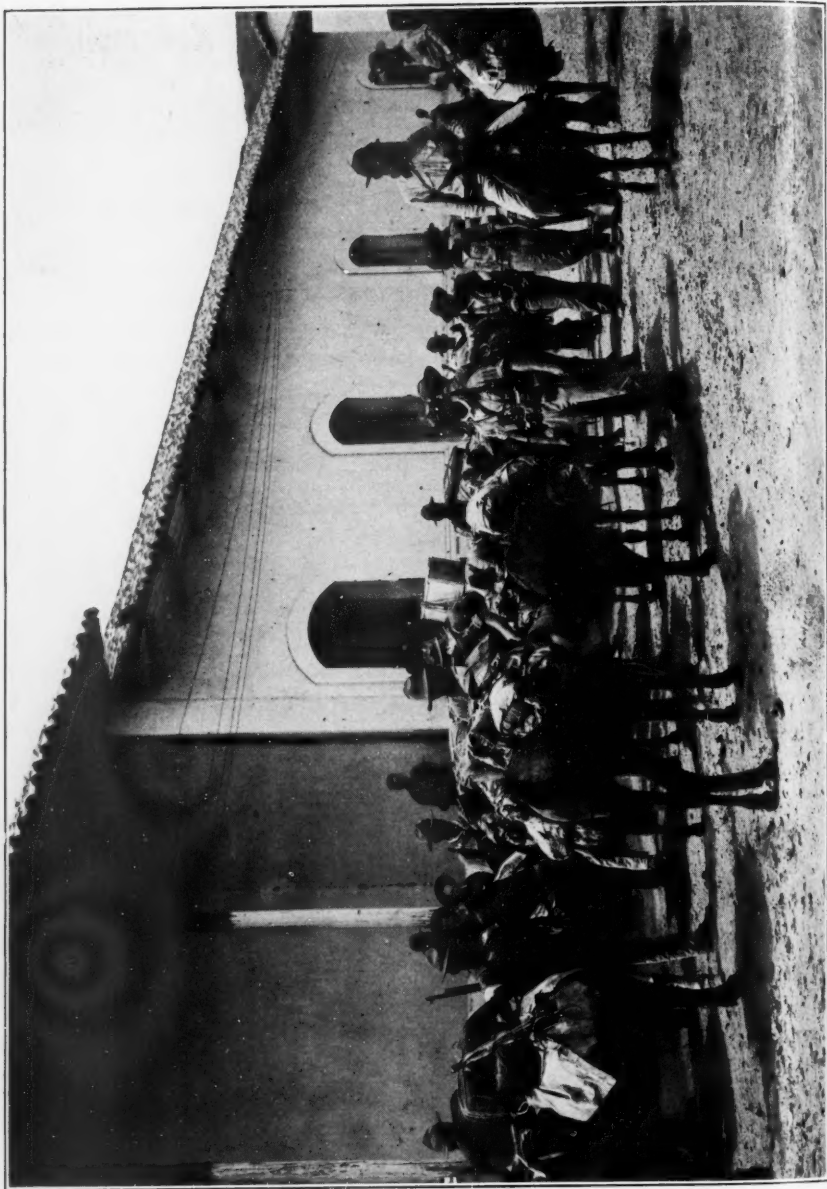
19. The Piaffer is the Passage in place, with slightly higher action, of the members of the diagonal off the ground, than in the Passage.

20. The Pirouette (circle) at the gallop is a circle made on the haunches, with a radius equal to the length of the horse. The shoulders describe a circle about the haunches, which remain at the center of the circle and serve as the pivot. The hind legs mark the gallop in place, rising and returning to the ground almost in place, while pivoting in order to follow the movement of the shoulders.

The horse should turn smoothly while maintaining the same cadence and the same impulsion.

The horse should not support himself continuously on one of the hind legs, for in such a case he would cease to be at the gallop.

21. All movements should be executed without any apparent action on the part of the rider. The latter should be seated squarely in the saddle with his loins and hips supple, his thighs and legs fixed, and with the upper part of his body easy, free and erect.



Marine Patrol with Pack Train Stating on Extended Patrol into the Nicaraquan Hills.
Reported by Company of 17th Infantry.

With the Horse Marines in Nicaragua

CAPTAIN MAURICE G. HOLMES, *U. S. Marines*

"NOW MAURICE, I'll have the *muleros* make up your cargoes and sling all the packs in my corral. When the train is entirely ready, we'll herd it into the street—then it's yours."

Such was the plan of Captain Kieren, commanding the Marine Detachment, Esteli, Nicaragua, for my initial start after bandits in the hills of that country with the 52d Company, 11th Regiment, partly on mules, partly afoot, on January 30, 1928. I'll never forget that start and I believe the officers with me then, Captain George Hall and Lieutenants Skidmore and Zuber, will remember it a long time also.

Grief in the Form of Mules

Most of those pack mules were *muy mansa* according to the native agents who had sold them to us during the preceding three days. "*Mansa como un tigre*," I heard an old *jefe mulero* named Santiago mutter while herding them up for me and Kieren to inspect.

We had orders to clear Esteli in the forenoon of that date and I know we did because the corral gates were opened at 11:30 A. M. There were six mules who cleared going east who are yet AWOL as far as I know. Some of them upon leaving Kieren's corral simply "took off;" some rolled; the majority scraped packs off against posts, adobe walls, and one another.

Our point had cleared the river a few hundred yards to the west; the main body was in place; and a squad and a half of Marines were spread where we intended the pack train to go. The rear point went into action at once trying to herd mules back where mules didn't want to be. Lots of men believe to this day, however, that soon we would have straightened out fine except for the air service. Two of those replacements for the old DH planes zoomed just over our heads as the pack train was approaching the river; by the time we had recovered enough mules to supply a good share of the ten days' rations we had planned for four officers, ninety-three enlisted, and seventeen *muleros* and guides, it was almost 4:00 P. M. I can see yet one man, after sprinting downstream to head off his roll, caught at a bend in a tangle of thorn growth watching his clothes float away on the brook's bosom.

We had covered all of five miles from Esteli by night-fall, when

we bivouacked in a stone-walled *potrero* full of lush grass with a stream down one side. All were most gratified to find forty-four mules on hand out of about sixty packed for us and fatuously believed these wouldn't make very much trouble since the ones who got away must have been the worst of the lot. So, in spite of the day's grief, the men after getting their fourths and fifths in the chow line pushed off to their bunks in the grass, allowing that we'd get off to a good start the next day. Well, we had reveille at 4:00 but didn't clear until 10:04 A. M.

And from sleeping in the grass in Nicaragua, may the good Lord deliver us. I had always picked as much of a grass mattress for my shake down as might be available even in the Dominican Republic, but that country lacked one of Nicaragua's curses, the wood tick. During that first night I was tired enough to have slept on a volcano, yet awoke many times feeling crawling things and faint prickings. When morning came, I pulled thirty-six ticks of various sizes from their burrows which ran from my eyelids to my toes. To pull them off is a boner, as I judged from a *mozo's* cynical remark on the ignorance of Marines who jerked out the tick instead of raising his rear with the tip of a finger nail, then gradually withdrawing him by repeated light scratchings. I'll grant that we were unlearned in the fine art of removing ticks at the start, but we learned to pierce the tenacious tick between the shoulder blades with a fine pointed needle and leave him to drop off at sundown when he finally died and gave up the grip. Of course, the error is to pull on him, for he merely concedes you the body while his proboscis hangs on to fester, be scratched, and give you a fine tropical ulcer, proof against iodine, mercurochrome, and family.

So, there we were on the way to Terreno Grande, alleged bandit stronghold marked on the map in red, some sixty miles away. My plans for fully mounting the company in Esteli had been abruptly checked by military necessity. The 52d was a company of recruits who came almost entirely from the Southwest and the Pacific Coast, a rangy set of men who included a number of ex-ranchers and farmers. Thirty-two of the entire company had claimed some acquaintanceship with riding animals and had volunteered to break and ride the mules purchased during the three days before our departure from Esteli.

The mule market was poor, due to previous revolutionary activities, and rendered the accumulation of a mount difficult. I rejected many mules offered showing ten square inches or more of white hair on the back. I wanted particularly to begin with the soundest founda-



—Photo by Sgt. Maj. C. B. Proctor

**Captain Maurice G. Holmes (left front), Commanding
52d Company, Mounted Marines**

tion possible, even at the risk of accepting some under-age and wild applicants. We had too often seen in Santo Domingo an island of scar tissue marked by those white hairs break loose from its borders of live skin. Since any animal a native has used very long is bound to have suffered from sore back, it follows that I gathered quite an unused lot.

Somehow those men rode the wild brutes—little? they averaged about 12.2 in height and less than 400 pounds weight. Even so, the riding animals furnished only a small part of the grief in general, for the pack train remained our heaviest drag. The end of our second day out found us about eighteen miles to the north and I wonder how we got that far.

Difficulties of Marching in Bandit Country

"*Alto, Alto. Una carga discompuesta,*" came up from the rear every two hundred yards, it seemed to me, leaving nothing to do but halt until they repacked the mule. Previous experience in that country indicated that small units of a column could not drift very far in safety, so it had become the practice to regulate on the rear-most man. More was involved than merely using security measures for specific danger spots; the problem was to clear with the tail of the column a likely ambush position about every hundred yards of the way. I would have enjoyed detailing an escort to that pack train and letting it catch up at the bivouac if I could have squared the step with my conscience. But with the exception of a few non-coms, all were recruits who had to be trained as we went, while neither maps

nor guides were available to lead a detached unit to the site picked for the night's halt. In fact, no one has yet found such procedure expedient while operating in bandit areas down there, especially when numbers of bandits reported run from three or five to one against you. Later we did divide into many small groups to beat certain areas but we had much more information than could be gathered in the early days. It never became possible to march steadily with patrols out, whatever the size of the column, for the trails and the bush made it physically impossible. Therefore, the requirements were to provide security although restricted to the dispositions of the main column; to get somewhere keeping under close control a mixture of mule, foot, and pack train; and, withal, continually to form new estimates, decisions, and appropriate orders for an endless chain of unfavorable situations.

Characteristics of Bandit Warfare

On the transport en route to Corinto, General Dunlap, then our Colonel, had given us the benefit of his experience in practically all the numerous expeditions of the Marine Corps from the Spanish-American War onward and also that of the officers who had been afield in Nicaragua in 1927. All proved invaluable in the field, especially that principle of the leader keeping his plans corrected to the instant and orders to execute those plans so committed to memory that he would give them automatically.

Many bandit attacks had first struck the point, many were an enfilade of the main body and some were initiated against the rear point. I am sure, however, that their plans habitually embody letting the security unit penetrate their position before they strike. The natives, willingly or otherwise, provide the bandits minute information of our strength and movements and tell us nothing of the bandits. To give us useful information means that the native has to remove to safety of one of our garrisons or have his house burned and his throat cut sooner or later. Thus, we could hardly ever get a fight on our terms and perforce had to fight the bandit on his.

Nature, moreover, has fitted the bandit to live off his country whereas that means intense hardship for the American, who requires at least the greater part of the ration to which he is accustomed and some changes of clothes. This requires pack trains of considerable size for all but the most brief patrol periods and naturally hampers the movements to some degree.

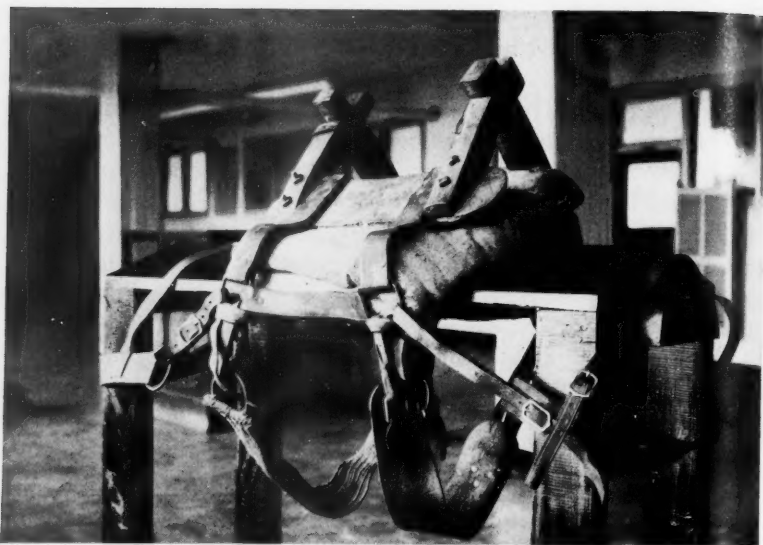
Delayed by Crude Equipment and Green Animals

Constantly delayed by our raw train, we took four days to Terreno Grande where two days were normally required. While the riding mules easily kept ahead by bounds, they also contributed to delays as they were most susceptible to shoulder lameness and cincha galls. Bunches welled up in their grass flesh like self-rising bread. Due, I suppose, to their lifelong grass diet, their bodies were cones with the points between their shoulders. Although we had a small cincha, hair, pony, for which Gunnery Sergeant Brockmeier and I had worked up the design in 1919, we couldn't keep it off those little runts' elbows. The natives down there place their cinchas about half way back to the flank and use a crupper also as a rule. But we had trouble despite both breast strap and crupper. These difficulties applied to the horses I acquired later although these had enough wither to prevent the shoulder damage the mules suffered.*

As for that stern anchor of ours, the pack train, I thought I was prepared for the crudity of native aparejos and pack methods but the actual thing was astounding. Their aparejo consists of two half-ellipse yokes held together on either side by two or three wooden slats which are set to bear somewhere on the beast's rib arch. It is generally constructed with a machete and a nail or two although some superior types are bound all around with raw hide. It is often hard to tell which end goes in front unless the rope crupper happens to be attached for there isn't always extra flare to the rear yoke of the thing. In saddling, the *mulero* piles old coffee sacks and pads of banana leaves several inches deep on the animal's back, then leaves it up to the load to embed the aparejo into some sort of working position on top of the mess. The entire mass is secured to the mule by a single grass cincha, since the pack proper is invariably fixed to the aparejo alone. It is needless to add that this cincha, holding by itself a load carried inches above the animal's back, works like the bootblack's shining rag and may stop cutting when it reaches bone.

Naturally, we couldn't stand this sort of thing very long. Our first departure rose from the suggestion of our 1st Class Cook, Private Lund, whose father had packed ore from some mine down in Arizona using bags which he hooked to crosstree saddles. I gave Lund a

*There is quite a problem yet to devise a saddle or to alter the present McClellan type to get a seat long enough for the average American soldier combined with panels short enough properly to fit those little beasts' backs. I had the side bars of an 11-inch McClellan saddle shortened an inch in front and three-fourths of an inch behind and attempted to fair the curved parts to correspond with the original mold, but the saddle rocked excessively in use. The arrival of a leave period and a change of duty thereafter checked my further experiments, but I believe it's possible to get worthwhile results along that line.—AUTHOR.



Home-Made Pack Saddle Used by Marine Pack Trains

hide of fair leather and twenty coffee sacks, whereupon we got the start to the scheme which later became almost general. That is, we finally devised an adaptation of the Moore cross-tree saddle, using breast strap, breeching, and two cinchas. For this, with the help of Gunnery Sergeants Williams and Nowack, I worked up a canvas pannier reinforced with leather. Each pannier of a pair was caught to the saddle by two U-shaped metal becketts which were dropped over the prongs of the tree. On the outside lip of each pannier we placed a metal ring strap through which we reeved a single line for setting the load. Then with a canvas cargo cincha carrying by either ring a short scope of line, we worked a modified form of single-diamond hitch which any recruit could sling after one or two demonstrations. That scheme lacked a lot, yet it was very light and secure, we could get the complete equipment made cheaply in Nicaragua and, above all, it worked in the hands of men who had no previous knowledge of packing.

Terrain of the Bandit Country

It is certain that few lands can present the soldier with the contrarieties he must face in the northern parts of Nicaragua. There are two forms of terrain, up and down; two seasons of the year, rainy and dry; two sorts of natives, apathetic and bandit. The native has two items of diet, tortillas and frijoles; the riding animal, corn and

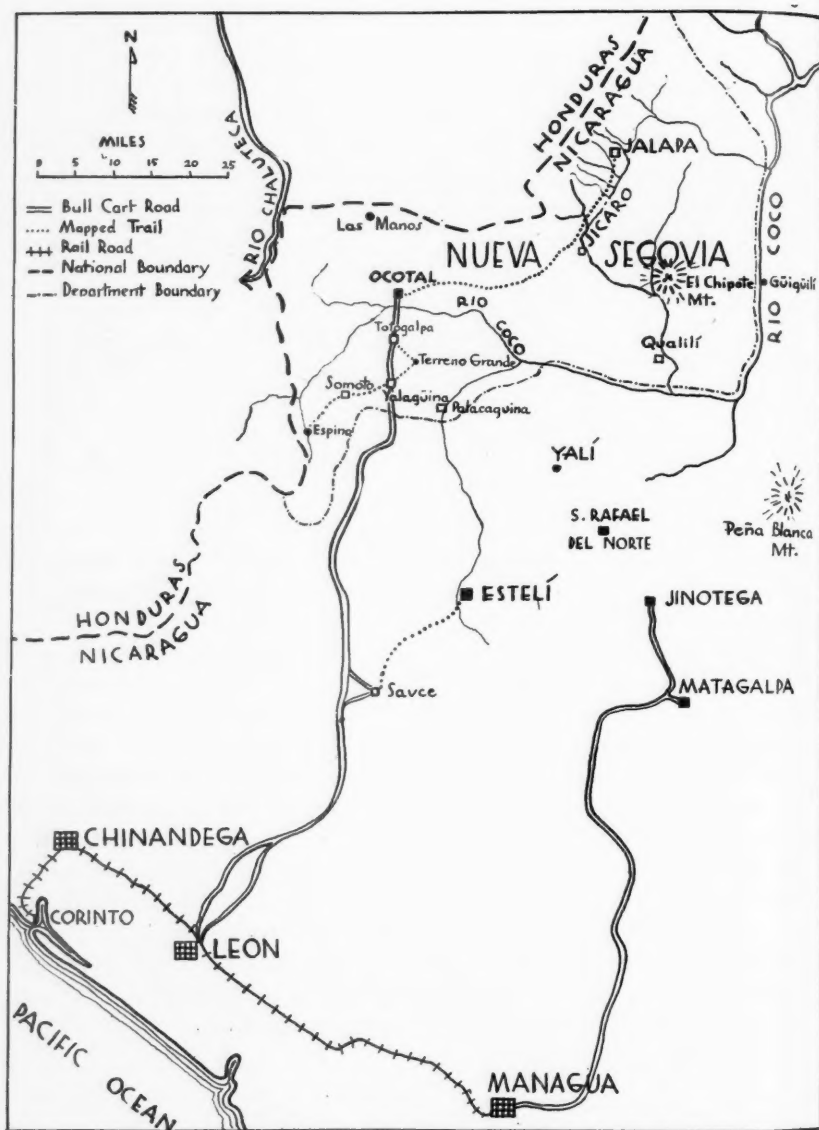
grass, and in April, May, and June, the grass is sparse or entirely gone. The thoroughfares are the *camino real* and the *picada*. The *camino real* may have the bush cleared as far as fifteen feet on either side in places, while the *picada* will probably show only enough machete slashings to indicate the course it follows. There is an occasional stretch of *caretera* or bull cart road but these end long before the soldier reaches bandit territory. Moreover, mud will lie hock deep between rocks near the hill tops in the dry season; there will be miles of deep forest with no grass; pine and bamboo will be found growing alongside each other where the stream lines have long been dry and the undergrowth burned off by the natives to encourage a new grass crop.

"The region of La Bufona (Nueva Segovia) is characterized by knife-like ridges separated by abysmal gorges," wrote 1st Lieut. Everett H. Clark, U. S. Marines, on his sketch of that area which Sandino had boasted he'd make impregnable. It is La Septentrión, the fabled northland, to the lyrically-bent Nicaraguan; remotely the scene of incursions by Aztecs from the south, Mayas from the north: Sir Henry Morgan with his buccaneers up the Coco River from the Caribbean; and, in the late 50's William Walker, the American filibuster from Managua the seat of his government. It stretches along practically all the western third of the Honduranian frontier and, with the Honduranian land adjacent to it, embraces the only part of the common border from the Pacific to the Atlantic which bears any appreciable evidence of civilization.

Its capital, Ocotal, well over in its western and more accessible portion, can be reached from Leon, largest and nearest city on the lone railroad which parallels the Pacific Coast, by a bull cart road about 205 miles long. In the dry season, the best bull cart time from the railroad to Ocotal is about twelve days. Quilali, erstwhile the most important settlement in the far eastern part of Nueva Segovia, lies just a little less distant from Managua but the bull cart trail thence ends about seventy miles away. The districts south of Nueva Segovia were entered by our trucks in the dry season but there is not even a bull cart trail from their termini over the seventy or eighty miles thence to Nueva Segovia.

Planes As Liaison Agents

About the only contacts to break otherwise complete isolation from the world without on the trail to Terreno Grande were connections with the patrols of two planes each which came over us almost daily. Stark necessity helped us become dexterous with the panel



Sketch of Western Nicaragua, Showing Bandit Territory in Which the "Horse Marines" Operated

code and the pick-up for we could not but feel that those planes represented the vital link in the general scheme and that we could not afford to increase the difficulties under which they had always to labor. As liaison agents, their value cannot be exaggerated. My outfit missed connection with Major Reno's detachment which we were to meet in Terreno Grande whereupon the planes, knowing where each was, gave both new courses for meeting in Totogalpa, a few miles northwest of Terreno Grande.

It was decided there that night that Sidmore would run into Ocotal to get more rations for that hungry gang of ours, while Major Reno and I with my mounted element and about the same numbers in foot patrols would cruise down through Yalagüina, then beat the Terreno Grande section afresh. There is a bull cart trail from Totogalpa to Yalagüina on which, in column of twos, we trotted the greater part of the way.

Information of the Enemy

Within an hour after our arrival in Yalagüina, two planes came dropping messages and a bunch of new orders. Sandino was known definitely to have evacuated El Chipote and to be on his way south toward the line, Yali—San Rafael del Norte—Jinotega. I was to take all of the 52nd Company I could immediately lay hands upon; beat it to Yali; and there check Sandino's retreat to the north. Other companies then entering the Jinotega—San Rafael area were to converge on the boy if possible and tag him before he could run back to his base. Two companies were to join me in Yali but they never got there. Major Reno was to return to Totogalpa for further orders while Hall and Skidmore would follow me to Yali without delay.

I got to Yali with thirty-two mule and eight foot in a trifle under forty-eight hours elapsed time, arriving on Monday afternoon, February 6th. There were three native families in the village which normally held thirty from whom I learned that friend Sandino had departed thence the preceding Thursday night, taking with him all the loot he could pack including all the whiskey and beer stocks. We could tell by this that we had to deal with a very selfish man.

Our planes had bombed and strafed El Chipote most thoroughly about the middle of January whereupon Sandino eased off into the thicker country east of that place, then corralled all his available thieves for a looting and recruiting expedition into the rich coffee sections of Jinotega and Matagalpa provinces. Native accounts of his force quite naturally varied from 200 to 800 well-armed and well-equipped men with lots of machine guns and anti-aircraft artillery, for Sandino rarely told his lies twice alike. My exact informa-



—Photo by Sgt. Maj. C. B. Proctor

**Captain Holmes and His Horse Marines After an
Extended Tour of Patrol Duty**

tion in Yali gave his personal force as 150, intrenching a position on the Volcan de San Rafael some six miles to the southeast, while two of his "Generals," Sanchez and Galeano, were about the same distance off to the northeast with 125 more.

These two groups were to attack me simultaneously between midnight and dawn as they knew all about my approach and arrival there and desired to wipe out such small units of Marines for morale and propaganda purposes. Needless to say, I passed a sleepless night on the heels of such logical information. Lieutenant Zuber, Gunnery Sergeant Cox and I arranged ourselves a watch list but all stayed awake anyway. I got six of my muleros to go out on watch along the three most critical trails supposedly about a half mile from the edge of the town. I don't know how far out they went for there wasn't much point in adding strain upon those recruit sentries of mine by returning to the lines during the night but I'm convinced that my Indian scouts kept awake from the drawn faces they brought into camp well after broad daylight the following day. I set four squads to enfilade the main approaches to the village with the remainder in reserve in a thick-walled adobe house which also abutted a well protected corral for the animals. There was not a shot fired that night.

About 5:00 P. M., the second day, Hall and Skidmore arrived with the rest of the 52d Company, the most welcome arrivals I've ever known. The planes had visited us twice that day, giving the latest information of the bandits and our own troops, and lastly dropped orders which returned Hall and Skidmore to Esteli with the dis-

mounted men to carry on with mounting them, while I took the mule element to Jinotega, about thirty miles to the south.

Sandino had moved ahead of our information, pausing only to snatch morsels of loot and pass out his catchy bits of propaganda. A native named Octavio, whose house in the Chipote area was Sandino's headquarters for several months of 1928, told me later that Sandino upon entering the plaza of San Rafael in that jaunt sang out to the dog-fight gathering, "*Cabrones, Chingajo! Tengo en la mano el triunfo!*" Well, the patriots reckoned he really had triumphed since he was right there telling them so and multitudes decided they would get on his band wagon. It looked better yet when he began commandeering army supplies from some of the juicy foreign-owned coffee plantations near Matagalpa, so they marched in the ranks of the army with stalwart devotion and delirious morale. When the column swung north, however, and whispers from the general staff indicated a return to the fastnesses of Peña Blanca and El Chipote, the increment of patriots decided that they could serve their country better at home.

Ordered to Assemble With Battalion

Now all our regiment was coming into the hills as fast as available means would permit. When I got to Jinotega on February 9th, the 1st Battalion was being assembled in Matagalpa. I got orders there to mount forty-eight more men from the troops in Jinotega and report with them to the 1st Battalion. Native saddle equipment was sent up from Matagalpa, mules had already been purchased, so all I had to do was pick the men, mount up and march. Between 5:00 A. M. and 10:30 A. M. of D day we got the remounts bridled, saddled, and held in column of twos in a street alongside our *cuartel*. Flushed with this success, I proudly gave the order for mounting in unison—and spent an hour and a half by the clock thereafter attempting to mount at will.

Shortly before we finally bolted out of the town, one poor private came up with the usual preliminaries and said: "Captain, Sir, I'd like to volunteer to walk to Matagalpa." I urged upon him that it is cheaper to ride than to walk with no effect.

"That mule never will cooperate with me, Sir; he resents my attitude. Every time I come near him, he wants to fight. He draws in a big breath, then faces around and blows it right at me."

At 9.15 P. M. we arrived in Matagalpa some twenty-one miles away. I attribute our speed to the lucky find of eighty-odd sets of rowel spurs in Noguera Hermanos' store in Jinotega. The regulation spur never bluffed those little mules beyond the first hour on the

trail; as a matter of fact, the rowelled spur meant nothing to any one of them after he decided he had marched enough that day. On this type mule, we tried every artifice we had ever heard about, like biting or twisting an ear or pouring water into it; twisting the tail; passing the bight of a line under the tail and trying to lead by the two ends rove through the rings of the bit; placing the glowing end of a cigarette under the tail—I had already been told that last had no effect. Closing the nostrils for a few minutes gave only a temporary spurt. The really exasperating feature was that those little devils would pull those unauthorized halts while yet with coats dry and ears up and when turned loose would head for the nearest patch of promising grass with the avidity of recruits racing to the head of the chow line.

We got a new slant on this balkiness when we were joined two months later by Gunnery Sergeant Williams in whose memory the new stables at Quantico are to be named. He believed that those mules balked from fatigue, pain of the load carried, or internal disorders instead of mere wilfulness or cussedness and urged that we let the quitters rest, cool them off, or reduce their loads. Once, on an easy first day's march for Ocotal to Las Manos, he had tried all these means on a pack mule who had developed really original ways of sliding or dropping off the trail into such gullies as appeared to fit his load and conformation. After one unusually long delay I wormed my way back through the column to find about eight men on the sides of a little gully holding a mule some three feet off the ground by halter, tail and halter shanks snapped into the rings of the cinchas while Williams, with one hand squeezing the mule's nostrils, was belaboring him on the side of his neck with an artillery whip. When the beast finally scrambled back to the trail, I asked Williams if he hadn't departed rather radically from his teachings.

"Well, Captain," he said, "I've given that mule every break in the world but when we lifted him way up in the air there and he wouldn't put his feet down, it was just too much."

In the morning following our arrival in Matagalpa, we fared north with the 1st Battalion of our regiment, establishing bases for a few days' occupancy as we went and pushing combat patrols ten or twenty miles distance therefrom in all directions. The countryside had to be cleared of bandits to provide safety for the vital coffee industry in those parts, while the battalion must also push on to strike their main body. The conditions of hillsides, shade, and moisture which make that section so appropriate for the superb species of coffee Nicaragua furnishes also provide, I think, the most distasteful terrain through which troops may have to march; black, waxy mud;

endless succession of climbs and descents with always another blue-black hill high against the sky line; steamy middays and biting damp at night when goose flesh from the chill and burning itch from tick bites run relays through your sleep.

Our Battalion Commander, Major Rockey, and his staff had their hands full indeed marching, maneuvering, and supplying that battalion which now included two rifle companies, mounted. The combination of mounted and dismounted elements strikes me as most appropriate to such conditions as those for there is a husky patrol force of creditable mobility to search the innumerable by-ways, while splendid support for the scheme is provided by strong dismounted companies along the line of advance. There was also a close plane cooperation with the column. These performed, it seems to me, almost every mission which could be given air service. They had discovered Sandino's presence in San Rafael del Norte even to the detail of the armed sentinel in the doorway of the house he occupied there. They refrained from attacking Sandino there because of probable injury to the non-combatant population of the town, a consideration for the bandits' fellow citizens which we have yet to hear of the bandits showing.

The natives soon began bringing information of the bandits in voluminous recitals. These accounts invariably commenced with the formula, "a boy coming from over there in search of a cow which had gone astray was told by a little old man that a large enough group of bandits with plenty of rifles and ammunition and camped the night before last on the hill near the house of his *primo hermano*." One zealous patriot came into our base northeast of Jinotega one day informing us that he could lead us to a man who would guide us to the exact spot where three hundred or more well-armed bandits were even yet in camp, "*Allí no más*;" not exactly in our back yard but still, not too far away either. Now it was strange that so many bandits had come in so close to a big outfit like ours, yet in that country the impossible had to be expected. So two officers and a strong patrol went out on foot that night to investigate. The informer led them to the little old man who had told the boy who had come from over there looking for the stray cow about those bandits and the little old man forthwith led them to the bandit camp. To the eyes of the patrol leader, the virgin bush appeared undisturbed at that camp site, however, to which status of the terrain the little old man finally agreed; in fact, he admitted that there were no bandits then present although he maintained they had been there, well-armed and in number, no less than three hundred. Well, how did he know they had been there? Had he seen them?

No, he hadn't seen them but he knew they were there by the barking of his dogs.

How did he know there were three hundred of them?

His dogs would not have barked so furiously at any less number.

How did he know they were well-armed?

Because no number so large would assemble in any camp unless they were well-armed; no *Senor*.

Well how did he know they were bandits anyway?

Why if they hadn't been bandits, they wouldn't have been there at all!

But a great deal, perhaps the largest part, of our information was quite exact. We found moreover, that the natives had excellent memories to support their willing tongues for they could give the details of a bandit movement from three days to three months after it had happened. Many made forced trips of great length to deliver their information but never started earlier than about three days after the bandits had departed for distant points. In this way, the native demonstrated his cleverness, for he acquired merit with the rather difficult *Americanos* by giving them useful data while at the same time, the bandits would not begrudge his keeping their history before the public.

Return to Base at Esteli

I returned to Esteli with those of my own company, exactly a month after my departure therefrom, to gather the remainder of the necessary equipment for mounting all my personnel and catch up the other loose ends of that job. Hall and the other part of the outfit, working out of Esteli had got themselves a nice brush with an itinerant bandit group in the meantime, bumping off several bandits and capturing a quantity of arms and ammunition. But the rest of us had not heard one shot fired in anger.

I used a two-week break after my arrival in Esteli to purchase fifty-five head of horses for the troop. It had been intended to mount the entire company on horses, but fresh plans for the bandit follow-up required all our strength in the field before I could finish the job. In fact, the job was never finished and we went to the end of our part in the show with company headquarters and one platoon on horses while the other platoon rode mules.

Relative Value of Horses and Mules

Now I greatly prefer the native horse to the native mule for both riding and packing, admitting freely that I am hopelessly in the minority as far as Marine opinions on their relative merits for Nica-



—Photo by Sgt. Maj. C. B. Proctor

Marine Pack Train Fording the Rio Coco

raguan duty have been expressed. I have long since quit arguments on the question for it seemed like arguing religions down there. Suffice it that I was given generous allotments for horse purchases and that I found the average price of horses in the approximate ratio to mule prices of \$60.00 to \$75.00; and, as I had no competition from other Marine units, I found a fairly good market available. The native horse requires more care on the trail and more food than the native mule. He is more susceptible to founder and to vegetable poisoning than is the mule and his feet will require shoes long before the mule's. On the other hand, when he falls out on the trail, you may be assured that he has no vitality left. His gaits are relatively faster than those of the mule, while he can carry more weight with less effort than the mule. Besides, all the horses would respond instantly to calls for sudden bursts of speed while perhaps some of the mules would while others would not. Our horses averaged about 13.1 in height, the mules about 12.2, and I believe the horse was heavier than the mule beyond the proportion of height. It was easier also to fit the issue saddle to him although there was trouble enough in that respect.

Second Expedition

Captain Phipps joined me the day before our departure for the second start afield since Hall had to go into Managua for medical treatment. Phipps and I shoved off with the horses to patrol the general line San Rafael del Norte—Quilali, while Skidmore was to follow with the mule platoon to support us and run rations as required. Phipps and I got into three little bandit brushes on the way

to Quilali which didn't hurt the bandits much but did our men a world of good.

We had left Esteli on St. Patrick's day and marched out of Quilali with the entire troop in time to spend Easter in Güigüilí, a district on the Coco River which fringes the southeast corner of Sandino's stamping ground in the area of El Chipote. We found ourselves taking part in a concerted drive of many detachments from the regiment upon this area. The drive pinched Sandino out of his bailiwick and started him prematurely on a long run down the Coco River to loot the mines of La Luz and El Angel in the department of Prinzapolka. Of course, Captain Edson ran him back but that is certainly another story and, I think, an epic in itself. Suffice it at this moment that Marines here used the water to supplement foot, horse, artillery, and air.

But our mission in the Chipote area was to make that part of Nicaragua untenable for the bandits. We did not make their subsistence there impossible but most assuredly we made it uncomfortable for them when finally they limped back into it. The joy of finding their caches of corn and beans, of arms, powder, dynamite, fuse, detonators, lead and mercury, machetes, clothing, jerked meat, and medicines was spiced daily with shots at their wandering patrols or foraging units. It did the heart good to note the alacrity with which the men dashed to surround a suspicious-looking shanty tucked away in the bush or chase a fugitive armed group or split off into half squads to flank a suspicious ambush position after they had seen for themselves that really there was a wily enemy to handle. They would talk about their exploits deep into the night instead of "belly-aching" because they hadn't been allowed to drink unchlorinated water when dying of thirst or to eat the queer looking mixtures they had found in native shacks.

We were well along in April when we got the recall from this effort and old man Summer had pushed home his drought with a vengeance. Corn from bandit stocks had been plentiful, but the roughage which the country should supply was burned up. Corn alone in hot weather we found a poor ration for animals. We cut banana, plaintain and bamboo leaves and green leaves from the bush for the poor beasts but had to watch the ribs grow more distinct each day in spite of all we could do. The men did their utmost, leading most of the time and carrying on the sturdier animals the spare parts of the packs of those which had weakened. Some of the horses went down on occasion a few hundred yards from the place we had picked for the night's bivouac with every sign of remaining where they lay

for good. Nearly always, by morning they would be pulling up the roots of the dead stubble near the picket line or standing alongside with heads drooping on their emaciated necks.

When this show was over, I went into Ocotal with the horses while Phipps with the mules was left between Hula Ranch and El Jicaro. Phipps, a few days later was shoved off upon call from Brigade headquarters to a devilish long hike to Jinotega, then, almost "without delay," to Casuli, a God-and-man forsaken spot some 150 miles to the northeast of Jinotega. I didn't see Phipps again until March of 1929 but heard a lot of the ground he and the Mule Platoon covered and the excellent work they did in keeping bandits out of that tremendous area.

Bandit Chasing in Ocotal District

Now in the neighborhood of Ocotal there are some irrigated patches where they grow *guate*, a corn-like grass, which they cure as we make hay, something like the *hierba de mais* or corn grass I had used in Santo Domingo. The proprietors of these plantings asked as high as four cents the *manajo* or handful for it but it was cheap at that when the horses were starving for forage. They were given plenty of it and in a remarkably short time were ready for more field work.

We struck in the section north and northwest of Ocotal an entirely new sort of terrain—hills, yes, inevitably—but more signs of civilization and cultivation. Our work took us along the frontier of Honduras and into liaison with the "expeditionary" forces of that country along the border. Here, also, we got some action. We gathered in a respectable number of arms, a fair amount of ammunition, and several prisoners who, if not bandits, were members of the *guardia civico*, the bandits' home guard. Anyway, they were well used to bearing and handling arms, marauding, and in all respects, were worthy material for the bandit forces in general.

Our general plans long since had included preparing ambushes for our friends the bandits in return for those they set for us. Of course, we wanted to pay them in some of their coin and tried it I don't know how many times without any luck. The only hint of success I had was when I left Sergeant Evans, four privates and two native agents with their horses all inside a house in a little village called La Presa. From a hillside about a mile from that village we had seen a number of men scurrying into the brush. The entire village was deserted when we arrived although we had shown only normal march dispositions in our approach. Tito,



—Photo by Sgt. Maj. C. B. Proctor

**Mounted Marine Combat Patrol Arrives at
Ocotal, Nicaragua**

one of my agents, called my attention to a large clay caldron of boiling soap near an adobe house stating that the caldron represented at least \$10.00 in cash to the soap makers who, he thought, would return as soon as we cleared the place. I had the main body fall out aimlessly surrounding the house and under their cover eased my ambush party inside. We soon rode away with increased distances to camouflage the number left behind, planning to halt within sound of firearms beyond the village. When our ambush party rejoined us they brought four prisoners, two of them armed with revolvers, whom we identified as members of a bandit group which had based on that locality for months. This bit of luck led the men to believe that we could do more along that line but I doubt whether any of those gentlemen would have returned to the village that day or the next if their soap could have been left safely on the fire.

My point captured one of a small bandit patrol on the outskirts of La Quesera, the next village on that day's trail. After disarming him, we impressed him as guide to a spot we had heard was a good camp site. The corporal of the squad acting as point was armed with a riot gun, a weapon I had been urging as desirable to the extent of one or two for each squad, so we gave him personal charge of the prisoner. When alongside an unusually thick patch of scrub on one of the steeper hillsides, the prisoner bounded over a low stone wall, dropped about ten feet to new footing, and dived into the brush. Even so, the corporal got three shots at him before he disappeared. Well, we surrounded that acre of so of bush and beat it for an hour

without finding any more trace of the prisoner than the marks where he landed after his first bound.

Naturally, we were a bit peeved and considerably mystified by that boy's escape. A few months later, we got him anew, however, and discovered, much to the corporal's satisfaction, that he had been wounded in three places as he ran: the bottom of one foot, the thigh, and one side of his buttocks. He had run only a short way into the bush and, as soon as he thought he was screened from the trail, he lay down in a dry wash, and covered himself entirely with grass and leaves. Comparing notes with other officers who had been unable to find bandits under similar circumstances, I learned that those Indians are adept at such practices. In this case, our prisoner was also wise enough to hide himself before the blood from his wounds had leaked through his clothing.

Natives have hold me since then that Sandino himself escaped from a Marine patrol during our April drive in pretty much the same fashion. According to their story he found himself hemmed on three sides by approaching patrols whereupon he scurried into the brush with only two men. All hid under such camouflage as lay to hand after going about two hundred yards off the trail and there remained motionless until just before dawn of the following day. Jirón, erstwhile Sandino's chief of staff, stated after his capture that Sandino pulled the same stunt when, in October of that year, we ran him out of his headquarters, Chupón. I suppose either blood hounds or divining rods will be required in our equipment for such shows as this last one.

Native Ponies Show Endurance

On our next long hike, a twenty-five day affair, we struck the first onslaught of the rainy season; that is, from the last week in May to the third week in June. I was with Major Rockey again on this one and he will bear me out, I am sure, in the grief features we had to buck. Worst of all was lack of feed for our animals. Stocks of corn had disappeared almost magically although we soon realized that corn planting in its season is really a religion with those Indians. On Corpus Christi day, they invariably set stalks of growing things among the crucifixes with which they adorned their yards and at the beginning of the rains they emerged from months of hiding to plant corn and beans for the new harvest. Whatever the reasons, we found the countryside barren of corn and also the new grass little more than a laxative for our poor beasts.

With no desire to make a brief for our horses, I must say that our animal loss was about two mules for each horse, although I grant

that the horses found a great advantage when the riders dismounted to lead. The end of that hike found us again in Quilali with about sixty-five miles of trail to stagger over on the way home. I started with three canteens full of *cususa*, the native moonshine, and as many more of strong black coffee. Whenever word came up the column that one of our animals was about to pass out, I'd halt and gave him a *cususa* drench. It delighted the troop to see one little strawberry roan who had barely wobbled his way over the trails for the past three days, though carrying no load whatever, rise and trot toward the head of the column with head and tail in the air as soon as he felt the *cususa* warm his insides. Game as he was, however, we had to leave him on the trail when the medicine ran out.

To go into many details of the various patrols we made seeking contact with those bandits were of little importance, yet some specific features may show the possibilities of such little native mounts as those which proved expedient for our purposes. While they could not average 600 pounds weight, they carried in no case less than 225 pounds and in many cases the riders alone weighed over 200. There was no feed for them beyond the grass and corn we foraged as we went; the corn sometimes varied by a grain the natives call *maisillo*, something very closely similar to our sorghum seed. In one march which kept us afield thirty-one days, we actually marched twenty-three days with four night marches besides and in my last long spell afield, we actually marched thirty-nine days out of forty-five days away from home. We did not cover great distances daily, although our animals were under saddle and pack generally from 7:00 A. M. to 4:00 or 6:00 P. M. with no break at noon, men and animals alike eating only twice a day.

As practically all our marching was done at the walk, it strikes me that the little beasts labored under even greater difficulties than normally to be visualized. In all Nueva Segovia there is only one stretch of any appreciable distance where normal proportions of trot and walk may be maintained; that is, from Jalapa in the northeast through Ocotal and Somoto to Espino in the southwest, right on the Honduranian boundary. This is a stretch of about ninety miles. We have covered the trail from Ocotal to Somoto, about twenty-two miles, in a few minutes under four hours with thirty animals in the patrol; from Ocotal to Jalapa, about fifty-five miles, with sixty animals in the column in an easy day and forenoon of the second day. It was apparent on those trips, which were unusually fast for us, that the mounts and pack animals also finished in better shape than when marched over equivalent distances at the walk.



—Photo by Sgt. Maj. C. B. Proctor

Just Another River to Cross for the "Soldiers of the Sea"

Patrolling Methods in Close Country

We soon worked into simple standard practices on these patrols. When our strength was four squads or greater, one squad was detailed to each the point and the rear point, riding at twenty-five yards distance on straight bits of trail and at visibility from the man in rear on the usual sort of going. The rear man of the point regulated by visibility from the head of the main body; likewise the leading man of the rear point from the rear of the main body. We kept the main body at normal distances with the pack train in its rear and our packers spaced about equally through the train, which in the early days we handled in groups of from three to five mules tied nose to tail but herded as soon as they became reconciled to us. Each squad was armed with one Browning Automatic Rifle, one Thompson gun and one grenade discharger. On one hike, I packed a three inch mortar and twenty-four rounds of ammunition for it but, desirable as its presence was, I asked relief from it since it added quite a bit of drag and grief with the pack improvised for it at that time. I retained a Lewis gun, however, which we secured in a cache of bandit arms on El Chipote late in 1928. Each squad carried six rifle and six hand grenades though I shifted the ratio to twelve rifle to three hand later on. As all were armed with the pistol, I carried ninety rounds of rifle ammunition in the belt and the remainder of the initial allowance for all shoulder weapons in the pack train. I found it a good practice to use from two to four armed native agents ahead of the point with a few native muleros back in the pack train. These were most useful at times as scouts, guides, handy men in camp, and for foraging in the settlements along the way.

We had to go quietly at all times and always ready for the ambush since we had little means to get warning of what might be waiting for us ahead. The men soon became adept at "passing the word" accurately and almost noiselessly from one end of the column to the other, which really amazed me, since at times five squads and the pack train would cover a half mile of trail.

The greater part of the forty-five day jaunt I've mentioned was spent in the neighborhood of El Chipote where it was my great privilege to be the senior officer present of six detachments converging upon Sandino's position there. There were days when for five hour stretches one could not see a solid ray of sunlight through the growths over the trail and for one week of that march I saw my rear point only during the halt for the night. This was the most interesting part of our work in Nicaragua, however, for hardly a day passed without something to shoot at. Thanks to the assistance of two Sandinistas we captured during the first week, we avoided one of the dirtiest ambush set-ups anyone could imagine, then finally ran Sandino out of his main headquarters.

In that section, the main clew to dwelling places was the crowing of roosters. The very dogs were muzzled with a strip of bark or banana fiber tied around the mouth and behind the ears so the beast might growl or take nourishment yet remain unable to bark. Here, we made no effort toward speed, which would be impossible anyway, and improved the chance to use numerous small patrols to the front and flanks while the main body, well-hidden, was spread to cover every aisle through the bush. Frankly, I like such practices very much as the security they afford robs the bush enemy of his most cherished hope of catching you in his thoroughly prepared ambush. It will mean very few miles covered in the day since when the route of the main body is only a lone *picada*, it is certain that the patrols are finding solid growth around themselves and if you don't wait until they rejoin, you'll never see them again. With several outfits working toward the same end with you, the strain on the bandits' intelligence system simply becomes greater than it can stand.

In many cases, the bandits had attempted to hide with brush or fallen timber the intersections of the *picadas* which they had slashed for intercommunication. We generally took such to indicate a worthwhile route to follow, difficult as it might prove. Generally such leads took us straight across chasms where we had to dig footing for the animals and literally lift them over ticklish places. Even so, we often had a dozen or more slip off the path to roll and slide as far as a hundred feet before a tree or the bottom of the gorge would check them. Time after time we wondered why we kept



—Photo by Sgt. Maj. C. B. Proctor

Horse Marines Return From Combat Patrol in Nueva Segovia, Nicaragua

them along when they meant heartbreaking labor unpacking, lifting them to their feet, and repacking them to have the same repeated every few miles. That was forgotten, however, when finally the ground did let the soldier mount up again. Old Williams, one morning after reporting the detachment formed for the march, said, "Captain, can't we mount just to ride down that long slope there? I'd like to be sure I got all the cobwebs out of my saddle."

Advantages of Mounted Patrols

This was by far the worst country we struck in over sixteen months in those hills and it did not prove anything against the horse over the long pull. In the main, I believe we who served there at that time were well agreed upon the expediency of making nearly all our patrols mounted. Many believe that the mounted formation is more vulnerable to ambush than is the formation dismounted but nothing in my part of the experience there indicates anything of the sort; quite the contrary, in fact.

The more difficult the trail, the closer a dismounted man must keep his eyes on the footing, so his observation of things around him is correspondingly reduced. He tires quicker than does the trooper thus sooner becomes indifferent to danger possibilities. Moreover, it is most natural for men to bunch themselves when threatened, a state impossible for mounted men because in column of troopers, as we had to go, there cannot be less than a horse's length between men. Naturally, we had to base all our plans on dismounted action and we found upon dismounting that the animals provided some very satisfactory

cover, however they might suffer. In my one real fight, we went into "action left" under fire from two machine weapons from the left front and the left rear supported by, I judged, at least sixty riflemen spread between the machine weapons, all at the mean range of 250 yards. We had six animals killed or wounded out of thirty-eight yet no man was struck at that time.

A couple of months previous to our episode, Lieut. Letcher, leading a small mounted patrol from Palacagüina on the trail of one bandit jefe, Orthez, had his mule shot from under him in the initial burst of an ambush. There were six bullet holes in the mule's breast in less than a six inch circle. Letcher told me he was certain that the bandits were expecting a foot patrol which had left the same garrison ahead of him and that he was exceedingly glad to have been mounted. If I remember his account in detail, the bandit machine gun opened fire upon them at about 100 yards' range.

Many of our officers became concerned also over the question of men going on foot becoming separated from their rifles if these were carried in the boot. I don't know how to argue that point but to me it is simply absurd. I had a little brush or so in Santo Domingo in 1919 and several in Nicaragua and I have never seen this happen. Even the one lone Marine who has run out on me in a fight in this time, hung onto his rifle with a deathlike grip. Moreover, I have always let my men leave their pieces in the boots when dismounting to lead up or down bad slopes unless the way ahead looked especially suspicious. In those cases, I might send a rifle grenade or two ahead while the point covered the flanks but this merely provoked interest to the degree that all were ready with their pieces in the hope that we'd scare up something for them to shoot at. My personal feeling is that I'd cling to the present type boot and that I'd do everything I could to dodge any scheme which hooked any more weight on the trooper's back than he has to carry at present.

Automatic Weapons in Patrols

I think I shall ever be impressed forcibly with the value of automatic weapons and weapons of high angle fire. I was never in a tighter place than I was in Cujelita in December of 1928. With thirty-one in my patrol, I was ambushed by at least four times my number and it took much too long a time to see a clear way out of it. I had four Brownings and four Thompsons in that fight but I couldn't attempt any sort of maneuver until I got the rifle grenades going. We had only twenty-four of these and shot twenty-one of them at the outset, Private Wadleigh saving three of his for later emergencies,

I am glad to add. Those grenades made it possible to move one little squad just in time to catch an attack enfilading our right. In that hour and a half of steady action, we did not have a single stoppage from the automatic weapons. I have no hesitancy whatever in saying that I'd be glad to arm every man I may have to take afield with an automatic or a semi-automatic weapon like those with which experiments are now being made, for our present day recruit simply eats up the problems of keeping such arms in perfect condition to function.

The issue rifle boot was not perfectly adaptable to the Browning and the Thompson although by alterations and shifting the boots daily from side to side, we made them serve. Frankly, I am loath to see the Browning in any status which would remove it from the squad of riflemen, however temporary the move might be. It means so much to the squad's morale and the squad must be depended upon for such extraordinary things that I believe it should never have to function at any time without this piece or its equivalent right under the corporal's eye.

Distances in Nicaragua are reckoned so vaguely on account of the paucity of maps and means of measuring the trails that I hesitate to express my estimate of the ground the 52d Company, Mounted, covered in our first year down there. May it convey some idea to state, that, according to the practice of the service schools in designating roads by key points along them, we passed through ninety-six such separate and distinct localities each with its official name and to indicate the total of our trips the number of similar designating names exceeds 176. In this time, the total number of horses procured for the company headquarters and the first platoon of the 52d Company was seventy-five while the personnel varied from forty-seven to fifty-five. May I add that under such conditions as we had to overcome, the policy of detailing two captains and at least two lieutenants to mounted units of approximately 100 enlisted bore fruit from every standpoint of military utility.

And as it is said that the outside of a horse is good for the inside of a man, let an aged Marine captain indulge the hope that before the joints become too stiff to dismount and lead up the highest *cuchillas*, he may again feel that elan which only the mount can give the soldier and lead another regular regular outfit mounted up the trail of the wily revolutionary.

Mechanization and Cavalry

By MAJOR G. S. PATTON, JR., *Cavalry*, and MAJOR C. C. BENSON, *Cavalry*

By special arrangements with the editors, this article appears in several other service journals.—EDITOR.

THE Cavalry has been in a good many tight places during the last thousand years, but it has always managed to keep one jump ahead of its rivals. When the clothyard shafts of English bowmen mowed down the flower of French chivalry at Crecy in 1346, it appeared that horsemen had met their match. Had they been bound to the tactics previously in vogue, the Cavalry might shortly have disappeared. Later the use of gunpowder threatened to drive Cavalry from the field; but it adopted the despised firearms and soon regained its lost prestige. When the improvement of firearms again placed the Cavalryman at a disadvantage, he discarded his heavy armor and learned once more to charge in mass at speed. The Cavalry of Frederick the Great and Napoleon, despite improved firearms, scored many decisive victories. The development of accurate long-range rifles, and, more recently, machine guns, has again put Cavalrymen to the test of adaptability. The question is now raised, as it has been raised many times in the past, is Cavalry still useful enough to justify its existence? For authoritative answers to this question, we look to the well-considered views of experienced military leaders. Here is what some of them have to say about Cavalry:

General John J. Pershing.—“There is not in the world today an officer of distinction, recognized as an authority on military matters in a broad way, who does not declare with emphasis that Cavalry is as important today as it has ever been.”

Field Marshal Sir Douglas Haig.—“Cavalry is indispensable, not only to act as mobile Infantry, but to reap the fruits of victory.—Infantry and Artillery can win battles; only Cavalry can make them worth winning.”

Marshal Foch.—“On the Western Front, Cavalry especially participated in the defensive battles, where they were engaged in the most difficult moment.—The large Cavalry units, thanks to their own mobility, were able to intervene in time and bring the precious assistance of their fire to the weak points of the defense.”

Marshal Hindenburg.—“Cavalry will continue to be important. There were many times when I wished I had more of it.”

General Ludendorff.—“The Cavalry was of the greatest importance

and service to me in all campaigns of movement. In the March, 1918, offensive, I felt seriously handicapped by lack of Cavalry."

In offensive and defensive actions in stabilized situations, as well as in warfare of movement, modern Cavalry has proved its value. One final comment, to bring the record more closely up to date, is taken from an address by General Charles P. Summerall on August 12, 1927.—"There has been a great deal of misinformation broadcast relative to the Cavalry. It is a fact that Cavalry is of far more importance than it has ever been."

Since these views were expressed, a new problem has arisen—what to do about fast cross-country fighting machines? This problem concerns not only the Cavalry, but also the Infantry, the Artillery, Engineers, Signal Corps, supply services, and Air Forces. The armored vehicles now being built are practically immune to air attacks; they have high strategical and tactical mobility, and can drive far into the enemy's territory to attack installations, including airdromes, that have heretofore been regarded as secure. As the Cavalry is particularly charged with providing security for other forces, it naturally devolves upon the Cavalry to devise ways and means to neutralize these new weapons. To bury our heads, ostrich-like, and ignore them, would be foolish. Foreign nations are proceeding with dispatch to perfect fast tanks, armored cars, self-propelled gun mounts, and their auxiliaries. More and more of their tactical thought is being centered upon the use of these machines. We may have to face them in future wars, whether we are ready or not. All branches are vitally concerned with the problems that ground fighting machines are thrusting upon them; and so far as the Cavalry is concerned, we propose to face the issue squarely right now.

Can fighting machines replace Cavalry? Much has been written about the power of machines, and all too little about their limitations. Granting that armored caterpillar vehicles can crash through belts of barbed wire and attack machine guns with impunity, let us examine some of the limitations, that apply but feebly to Cavalry, which will restrict the use of machines. The principal items are supply, control, and terrain.

The question of supply is far more binding upon machines than upon Cavalry. Unlike men and horses, machines must have full rations. Even with full rations, their mechanical condition and efficiency deteriorate rapidly in field service. A liberal quota of replacement parts must be supplied, in addition to gas, oil, and grease, to keep the machines running. Furthermore, these supplies must arrive regularly, at timely intervals, or the machines will quit in their tracks. Once immobilized, they are easily destroyed. During the German

drives in the Spring of 1918, British tank crews had to abandon and demolish over two hundred heavy tanks that had run out of gas; but it is not recorded that any of the British Cavalrymen who helped stem the tide had to blow up their horses. With faster machines and more adequate measures for the supply of combat elements, it is true that many of the previous difficulties can be overcome. However, gasoline burns so readily that it requires a rare stretch of imagination to picture a horde of machines living off the country, as Cavalry has done many times in the past. Tank drivers are resourceful, but they have not yet learned how to dismount and lead.

Another important restriction on the use of machines is that imposed by the difficulties of control. Speed and power without control are useless. The British have been using radio phones in their tanks since 1926, and probably have the best control devices in the world. However, they have been unable to utilize in maneuvers more than half of the rated mobility of their machines. Accounts of their 1929 maneuvers indicate chaotic confusion in the engagement of comparatively small Tank units especially when Infantry of the opposing sides became involved in the melee. Dust and smoke rendered signal flags useless, and silenced the guns because it was impossible to distinguish friend from foe. Until reliable and rapid communications can be established and maintained between fighting machines, it will be practically out of the question for them to cooperate effectively in a sustained action.

A third limitation is that imposed by natural and artificial features of the terrain. Obstacles that appear trifling to a well-mounted Cavalryman often put a serious handicap upon machines. Armored cars of the wheeled type, operating in woods, mountains, or where there are numerous streams, are practically confined to the roads. A mine or mine crater in the road, a bridge destroyed, a barricade, or a fallen tree—and the machine is stopped, perhaps under fire in a position from which withdrawal is difficult. The best of these machines, the French Berliet six-wheeler, has some remarkable cross-country performances to its credit; but even this excellent machine becomes sluggish and difficult to control when forced to negotiate steep slopes or fields strewn with boulders. In rough going, the wheeled machine has less mobility than the Cavalryman, and its weapons are almost useless because the gunners cannot take good aim. In close country, where the machine has to stick to roads, its value as a fighting vehicle is materially reduced. The present Cavalry weapons, if resolutely and resourcefully used, are sufficient to neutralize wheeled vehicles on the roads. In flat country, the wheeled vehicle can operate across country with great freedom. The British and French have made

effective use of wheeled machines in northern Africa, Asia Minor, and India. However, important military operations are seldom conducted in desert country; consequently, opportunities for the employment of wheeled vehicles under advantageous conditions will be limited.

Modern fast tanks are much more formidable. They can travel across country over extremely difficult ground, and can avoid or crush many obstacles that would stop a wheeled machine. In woods or mountainous country, they too are confined to the roads, and are thus at a distinct disadvantage as compared to the Cavalryman. They cannot operate effectively where precipitous slopes, boulders, or streams obstruct their progress. Their rate of speed and accuracy of fire are considerably reduced by uneven ground, and they can readily be destroyed if they venture into areas that are unsuited to their proper use. The bogs of Flanders became the graveyard of many British tanks.

The combination wheel and track machine is the most adaptable to varying conditions of road and terrain. One machine of this type, using wheels, has attained the rate of seventy miles an hour on a concrete road. Across country, on tracks, it has done better than forty-two for a short distance; and has averaged over fourteen for hour after hour, through rain, mud, red clay, and deep sand on the test course. The writers have observed closely the performance of this machine ever since it was first submitted for test in October, 1928, and are convinced from personal experience that it is a powerful weapon. They also know from personal experience that neither this machine nor any other that has yet been invented, could operate in those parts of northern Chihuahua where our Cavalry not so long ago rounded up several hundred of Villa's followers. Even the most versatile machine could not have gone where our Cavalry had to go.

Regardless of the progress made in the development of fighting machines, Cavalry will always be necessary. It will hold its own because no other agency can perform Cavalry duties with equal reliability and dispatch. It can operate effectively in woods and mountains where machines cannot go; it can even swim streams that would stop machines; and whether its supply trains come through or not, it can carry on day and night under any conditions of roads or weather. To expect mechanical vehicles—impotent without regular supplies, blind and deaf to control, and restricted by terrain—to take over these duties, is to expect the impossible. Each arm has its limitations and its proper sphere of usefulness.

Instead of rivalry, there should be union to insure strength. The Infantry has its heavily armored tanks to lead the assault; the Cavalry

should have fast cross-country machines for extended rapid maneuver in operations against the enemy's front, flanks, and rear. The union of Cavalry and mechanized units equipped for rapid maneuver would be natural, for they have much in common. Both are highly mobile; their tactics are similar; their actions develop and culminate rapidly; and their commanders, to be successful, must possess like traits. Each supplies in generous measure what the other lacks. We have dwelt upon the limitations of fighting machines in order to counteract the present tendency to over-rate their powers; but to deny that they are valuable weapons would be absurd. On suitable terrain, armored fighting machines are indeed formidable. The obvious thing for the Cavalryman to do is to accept the fighting machine as a partner, and thus prepare to meet more fully the demands of future warfare.

How can fighting machines assist the Cavalry? First, by helping to protect Cavalry against the enemy's aircraft and armored vehicles. Protection against air attacks can be made remarkably effective by using machines armed with machine guns to cover the front, flanks, and rear of Cavalry on the march. Machine gunners thus mounted could engage the enemy, without wasting any time in placing their weapons in the firing position, before the hostile aircraft could reach the Cavalry main body. The 1929 *Cavalry Field Manual* (page 395) states:—"Machine guns, once they are in position and ready for action, constitute Cavalry's most effective weapon against hostile aircraft.—When mounted upon motor vehicles—they afford ideal antiaircraft protection for Cavalry on the march." So far as antiaircraft protection is concerned, unarmored machines would be satisfactory; but we must also consider the enemy's fast tanks and armored cars. In 1922 a study prepared at the Cavalry School raised various questions concerning Cavalry methods of defense against these new weapons. During the eight years that have elapsed since those questions were raised, fighting machines have been greatly improved. Defense against modern machines, especially in open country during the daylight hours, will be extremely difficult unless our Cavalry has a liberal quota of fast cross-country vehicles with which to neutralize those of the enemy.

If provided with machines for its own security, Cavalry will be better able to gain information and provide security for other forces. On reconnaissance in open country, its armored vehicles can cover long distances at a high rate of speed; and under favorable conditions, the machines will be of great value in extending the reach of the Cavalry. For counter-reconnaissance, Cavalry patrols could establish the screen and the machines, held centrally in reserve, could use their high mobility on previously reconnoitered terrain to drive back aggres-

sive hostile forces. On flank guard work, the business of getting patrols out soon enough and far enough would be much simplified wherever the terrain permitted the use of machines. With a Cavalry rear guard, and in delaying actions, armored vehicles could protect our flanks and threaten those of the enemy; make offensive returns to check the enemy's progress; or remain concealed in selected positions to cover the withdrawal of mounted troops. When Cavalry has to hold a defensive position, its fighting machines could initially cover the position and eventually serve as a mobile reserve for counterattacks. In short, wherever the terrain is suitable and particularly in open country, fighting machines will be to the Cavalry what Cavalry is to the Infantry.

For offensive operations in open country, Cavalry can use fighting machines to great advantage. The *Cavalry Field Manual* (page 373) states:—"Tanks are valuable offensive weapons in practically all forms of combat where intense or stubborn resistance is to be overcome. Their use for this purpose facilitates a more rapid advance of Cavalry." In an attack against troops in a defensive position, and during the initial stages of exploiting a breakthrough, there will be excellent opportunities for the employment of these machines. To mount an attack of sufficient magnitude to make a breakthrough requires immense supplies, whose movement congests the roads; but Cavalry and its fighting machines can move to their appointed places across country. Heretofore, resistance met in passing through the breach has been costly to Cavalry both in time and in casualties. Fast cross-country fighting machines can materially reduce these delays and losses, and thus enable the Cavalry to get through more quickly and in greater strength. In both direct and parallel pursuit, the machines can again render valuable service by helping to brush aside delaying detachments and by preceding the Cavalry to distant defiles or bridges. So long as the terrain permits vehicles to operate effectively, their use in conjunction with pursuing Cavalry will produce more decisive results than either arm could secure alone. The fighting machine will conserve the strength of mounted troops and will contribute materially to their combat power.

One company of light tanks (infantry), and one squadron of armored cars (cavalry), are now authorized for each cavalry division. Unfortunately, there are at present no fast tanks available, and we have only about half a dozen armored cars. If our Cavalry is to study and apply the new methods that fast tanks and armored cars provide, it must have the necessary equipment.

The fighting machine is here to stay, and if our Cavalry has not

lost its traditional alertness and adaptability, we will frankly accept it as its true worth. If the 14th Century knight could adapt himself to gunpowder, we should have no fear of oil, grease, and motors. Confident of our own power, we should give to the fighting machine the serious thought that it deserves.* Field Marshal Allenby, one of the ablest Cavalrymen of our times, said recently:—"I have never felt more confidence in our arm than I do today. It has retained the good, rejected the bad, and has not shrunk from the new."

*In the July issue of the JOURNAL, Major Patton will discuss in detail the use of motorized transport and armored fighting vehicles in conjunction with cavalry.—EDITOR.



Taming The Outlaw

By CAPT. H. E. TUTTLE, *Remount Service*

The problem of handling and immediately putting into service unbroken or so-called "Bad" horses is one which will come to all Cavalry officers with troops under mobilization conditions. The author has had extensive experience in handling this type of remount at the Fort Robinson Remount Depot; the method that he describes is the result of repeated tests on difficult western horses. The article was prepared under protest by the author, he modestly declining to set himself up as an authority. The known value of the method and the clear description of the technique involved make it an extremely interesting article for consideration.—EDITOR

AN article on how to handle horses that are unmanageable can be offered only with the greatest reluctance for the reason that it is quite impossible to lay down a rule to which an exception cannot be found. Every horse presents a different problem and every problem requires a different solution. Thus it will be apparent that irrespective of the completeness of any system a case can always be found that must receive different treatment. It is because of this ever changing complex that the handling and training of horses is made so fascinating.

I think it is a fair statement to say that man's ability to train and bring horses under control is limited only by his ability to convey his wishes to them. That is, man must talk a language that is understood by the horse. Such a language is made up of words, voice inflections and muscular reactions. Because of the highly nervous temperament of most horses, fear is a common characteristic; fear of being injured or hurt by everything that is strange or not understood. Man, with his higher state of mentality and reasoning power, only too often becomes impatient at what he considers to be the insubordination of the horse, whereas it is in fact a lack of understanding or confidence. Man will then resort to violence with the result that what little confidence the horse had in man is destroyed and because of his power and strength the horse overcomes man and we have what some choose to call "an outlaw." If this is a true statement of fact it must be accepted that the horse is an "outlaw" because man made him so.

Another striking characteristic of the horse is that he gains courage and boldness with success. That is, if during a training period the horse has successfully evaded in whole or in part the will of man he will then be more difficult to handle when next subjected to training restraint. If allowed to continue, by the time he is given the title of "outlaw" a very nice problem is presented to the so-called "handler of vicious horses."

In considering a problem of this kind it will first be necessary for

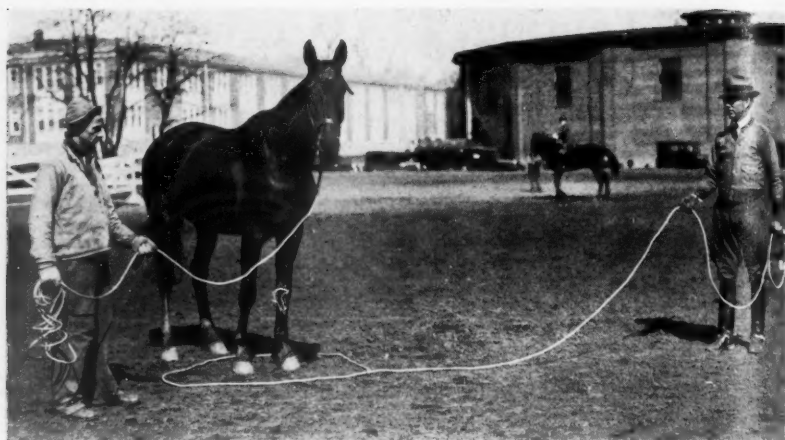


Figure 1—One Method of Laying the Loop Preparatory to Throwing the Horse

man to reestablish confidence in the horse. In doing this it is of *vital importance* that the horse be not injured or punished in any way. The horse must be convinced that his fear of man is groundless and if he submits to him he will not be harmed or injured. Briefly, bringing the horse that is unmanageable under submission is accomplished by throwing and securely tying him. All kinds of disturbances are then made around and near him and this noise is continued until the horse relaxes. The instant this is done it is an indication that he is submitting to your will and in all future handling this confidence should never be betrayed.

The person who is to take charge of the handling should be an experienced horseman—one who will recognize immediately the horse's reactions, which as a matter of fact is the only way the horse has of talking. The person in charge should have five assistants who are mentally and physically active. It is essential that all of them be fully instructed in just what they are to do and when it is to be done. This is especially necessary in the matter of throwing the horse for I assure you he is going to fight back and if a failure is made the first time the second attempt will be increasingly difficult.

Let us assume for instance that the horse to be handled will strike, kick and refuse to let you place the saddle on him. A halter is put on the horse either in a "chute" or stall and he is led into a corral, riding hall or some inclosure. The ground should not be too hard or have any rocks on which the horse could be injured. If it is difficult to handle the horse on the end of a halter rope ten or fifteen feet long

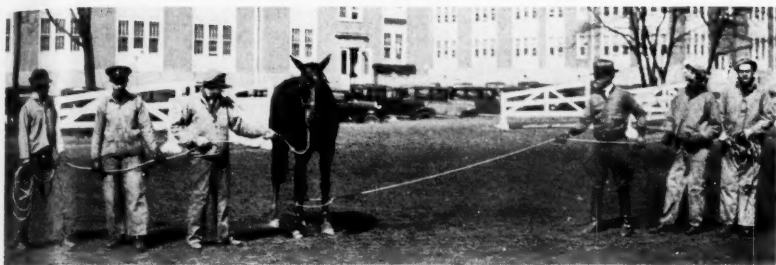


Figure 2—The Loop Has Been Tightened on the Front Legs of the Horse. The Men on the Left Should be the Same Distance Away From the Horse as the Men on the Right

he usually will give little or no trouble if led beside a quiet horse. When the horse is first brought into the inclosure do not subject him to too much restraint, that is, a too tight halter rope or any personal attitude that tends to place him on the defense. All of this that can be avoided will be found to be to the handler's advantage when the final test comes.

The chief handler should have an ordinary lariat, usually about thirty-five feet long with a loop on one end. This loop is placed around the horse's front legs; this can be done either by making a loop on the ground and leading the horse into it, or, if the handler is skilful with a rope he can cast a loop over both front legs when the horse is in motion. Irrespective of the method used several attempts may be necessary before the rope is properly placed. In many instances the so-called "outlaws" know what it is to have a rope on them and will either stand perfectly still when they feel it tighten or will fight like a demon. Either reaction may be expected.

Three of the assistants take hold of the halter rope well to the end of it. The rope should be approximately at right angles to the way the horse is standing, on the "off" side and a little to the front. The other two assistants, together with the chief handler, have hold of the lariat. They should be on the "near" side and the lariat rope should be about at right angles to the way the horse is standing. The horse should be standing on all four feet before an attempt is made to throw him. If he is rearing and plunging around keep him under control, but nothing more.

When all four feet of the horse are on the ground and both ropes tight, the chief horse handler moves up a little closer to the horse, takes his hat and throws it at the horse's head. The horse will rear on his haunches and throw himself away from the hat and in the direction of the men holding the halter rope. When the horse does this the

men on the halter rope pull quickly and violently, with the result that in nine cases out of ten the horse, taken completely off his balance, will go down.

The instant the horse's hind feet are off the ground and the horse is on his side the chief horse handler drops the lariat, jumps to the top side of the horse's neck, places his left knee in the region of the throat latch and taking hold of the nose band of the halter raises the horse's nose in the air so he cannot get up. Simultaneously with his taking hold of the nose band the men on the halter rope must ease up immediately so that they will not be pulling against his effort to raise the horse's nose. The two men on the lariat keep it tight so that the front legs will be well extended. With the chief handler's knee in the place indicated and the horse's nose well in the air it will be impossible for the horse to get his feet under him. Once the horse is down and you have him at a disadvantage it is seldom the horse will struggle. For this reason do not bend the horse's neck too sharply or use greater force than is necessary to hold the nose up. Remember, however, that the horse will take advantage of the slightest relaxation on your part and if successful in freeing his head he will probably get up in spite of everything that can be done. It will be assumed, however, that he did not get up.

Unless there are men experienced in "hog tying" an animal, it is advisable for the chief horse handler to do this, since he is, theoretically at least, responsible for the success of the treatment. He has one of the halter rope men hold the horse's nose in the air, after which the chief horse handler passes around in front of the horse to his front feet. The men on the lariat ease up on the rope and the noose is slipped down over the fetlock joint and tightened on the front pasterns. In addition to the noose a couple of half hitches should be taken around the front legs to insure security. The lariat rope is then passed around the *top* hind leg between the hoof and the fetlock joint. This is usually done by one of the assistants since the chief horse handler should not leave the front legs until the horse is tied up. The top leg should be tied first for the reason that if the under leg were tied first it might be badly bruised or cut should the horse kick or thrash around with the top hind leg. Kicking with the under leg cannot possibly injure the top leg after it is tied or is being tied to the front legs. It should be quite unnecessary to voice a word of caution when the assistant is placing the rope around the hind leg. Sometimes a horse in this position will kick badly when his feet are moved, and sometimes he won't. Either reaction may be expected, so it will be wise to play safe. After the top hind leg has been drawn to the front legs and made fast the bottom hind leg is then drawn to the front



Figure 3—After the Horse Has Been Thrown. The Halter Rope is Slack. The Lariat Rope is Still Tight and the Horse's Nose is Being Held in the Air

legs and tied securely. It is always advisable to take three or four turns around the rope that holds the front and hind legs together. Care should be taken not to draw the rope so tight that it stops blood circulation. The legs should, however, be secure.

The horse is now securely tied and his head should be relaxed. It is always a good plan to slip a blanket or something of the kind under the horse's head. This will keep dirt out of his eye and will prevent a possible injury to it.

The psychological reaction for the next phase is to impress upon the mind of the horse that no matter what happens he will not suffer pain or be injured by man. In creating a commotion anything can be employed that will make a noise. As a matter of convenience I usually string fifteen or twenty tin cans on a piece of hay wire and rattle them along the ground. Two or three strings of cans may be used in order to swell the chorus.

The cans should not be rattled too close to the horse at first, but within thirty or forty feet, depending entirely upon his nervous temperament as reflected by the violence with which he resists his confinement. It is always advisable to drag and rattle the cans in a complete circle around the horse, each circle being a little smaller than the previous one, until finally the cans are passed over the horse's body.

During the disturbance the chief horse handler should be on the ground immediately back of the horse's neck and should keep up a continuous line of talk in a most *reassuring* tone of voice. He should also keep patting the horse on the neck and impress upon the mind of the horse that man is his friend. It should be made clear and apparent

to the horse that nothing can harm him and that his security and protection must come from man.

While all this noise is being made the chief horse handler should watch the reactions of the horse very closely for the reason that the *instant* the horse submits the noise should stop. This evidence of submission is manifested in different ways. When the noise is first started the horse will struggle most violently. He will bite the ground,



Figure 4—The Chain Hobbles—Dimensions: center ring $3\frac{1}{2}$ " diameter, $\frac{1}{2}$ " stock, chains with swivel and "D" ring 19" long. Double leather, hand stitched straps $1\frac{1}{2}$ "x20" lined with latigo leather 2" wide to which wool sheep skin should be sewed to prevent excessive chaffing

the blanket or anything else within reach. He is helpless, however, and because of his helplessness will eventually surrender. Invariably this is evidenced by a little short squeal and relaxation. The ability of the chief horse handler to recognize the act of surrender will determine to a considerable degree the success of the treatment. This is because the horse associates the discontinuance of the noise, the elimination of his tormentors, with relaxation and submission. If the treatment is carried beyond this point and the noise stopped after he submits, he can assign no reason for its stopping and the desired point is lost.

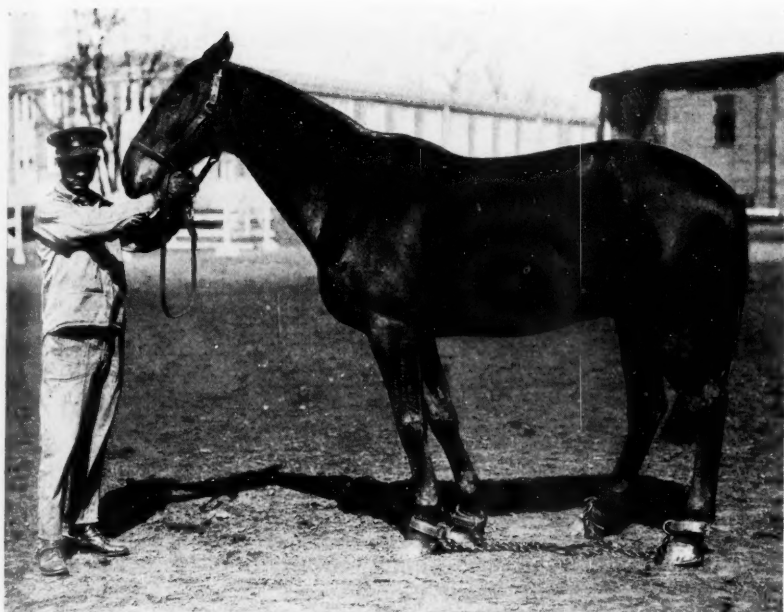


Figure 5—Hobbles on the Horse. Normally the Animal Would be Standing With Halter Rope Hanging Free Which is True of all Succeeding Pictures. The Attendant at the Animal's Head was Merely to Facilitate Photography

After the horse has surrendered and relaxed let everything be normal for a few minutes. One of the attendants should then start with a string of cans twenty-five or thirty feet away from the horse and drag them right up to him and let them touch him. This can be repeated several times. The chief horse handler should never leave the horse's head as long as he is tied up. The horse's reaction should be very carefully observed and it should be noted whether or not he still struggles and fights the noise or accepts it. When there is a reasonable acceptance of various things of this kind the treatment should stop.

The third phase of the treatment consists of giving the horse a certain amount of liberty and yet have him so disarmed that he is unable to inflict bodily harm to a person near him. This is done by putting on a chain hobble. It consists of four chains radiating from a common ring with "D" rings and leather straps on the end of the chains. (See Figure 4). The chains are of the proper length so that when the straps are buckled around each pastern the horse can take short steps but can neither kick nor strike.

This hobble is placed on the horse while he is still "hog-tied." The strap should not be tight around the pastern and the ropes can be eased up sufficiently to adjust the strap without fear of freeing the legs. Sometimes a horse that has been subjected to this treatment will continue to lay on the ground after his legs have been released. After the hobbles have been put on and the lariat removed the horse should get on his feet.

Continued treatment is governed to a large extent by the particular vices which made it impossible to handle him. We assumed in the first instance that the horse would kick, strike and could not be saddled. For kicking we will take an ordinary stable or house broom and brush him around his hind feet. (See Figure 7). If he is running true to form he will kick himself on to his knees. Sometimes the surprise is so great that he will kick again as soon as he gets his fore feet under him. I saw a horse kick his front feet out from under him six time just as fast as he could get up, and then you couldn't aggravate him into kicking again. The treatment with the broom should be kept up until the horse no longer fights it. I say "keep it up"; the chief horse handler should distinguish between fighting the casual use of a broom around the hind legs and the use of the broom in such a manner that any gentle horse would resent and kick at it. Remember the problem is merely to gentle the horse and not to break his spirit.

You now start handling his hind feet. Before beginning take an ordinary halter rope and tie it loosely around his neck so that it will be



Figure 6—Showing the Halter Rope Around the Neck Which Offers Support While the Horse Handler Works Down the Hind Leg

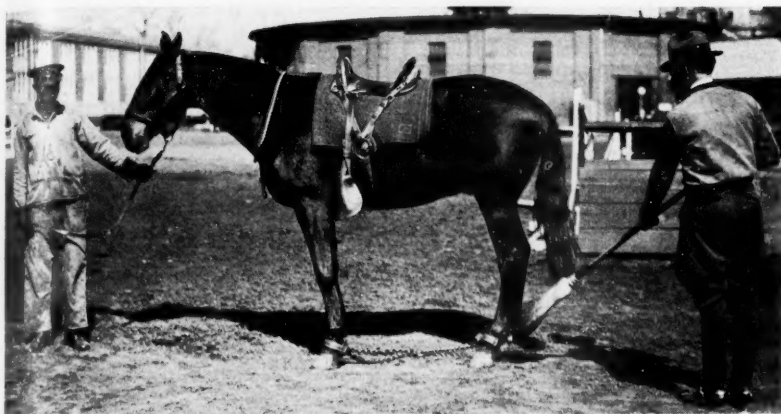


Figure 7—Using an Ordinary Broom Around the Animal's Heels to Test for Kicking

about where the collar rests. (See Figure 6). This is something to keep hold of with one hand while you begin to work the other down on the horse's flank, gaskin, hock, and finally get the horse's foot off the ground. When starting this particular treatment lean your body firmly against that of the horse. In fact it is desirable to push against him. This tends to keep his mind occupied and consequently he will offer less resistance. In conducting this gentling exercise do not proceed too rapidly, that is, progress should not be faster than the horse will accept without resistance. After picking up one hind foot the same thing should be done to the other foot, also the front feet in case they enter your problem.

This horse also resists being saddled. The saddling should be done quietly and carefully. By using the word "carefully" I do not mean that the horse should be approached "timidly." Every movement made around the animal should be with boldness and confidence. If you are going up to the horse, walk right up to him in a positive movement as against going a step or two at a time for the purpose of noting his reaction. The horse is disarmed and cannot hurt you; thus he should receive the impression that positive definite movements on the part of man will not hurt him.

Put the saddle (or harness) on the horse as though the horse were perfectly gentle. That is, don't give the horse the impression by your conduct that the saddle is a thing to be feared and that something terrible will happen the instant it is placed on his back. Let the saddle rest on the back for a minute or two; then raise it up and replace it. This should be repeated several times, or until the horse does not

resist. Cinch up the saddle but not too tight at first. It should be rocked from side to side with the hand so that the horse will begin to get the "feel" of both the cinch and the saddle. After this is done a few times, tighten the cinch a little more and continue until it is tight enough to bear the weight of a person on one stirrup.

With a hand hold of the pommel and cantle of the saddle place your weight on one stirrup. Do this several times or until the horse no longer resists. Stand straight up in the stirrup and lean against his body and finally throw your leg over the saddle with your weight

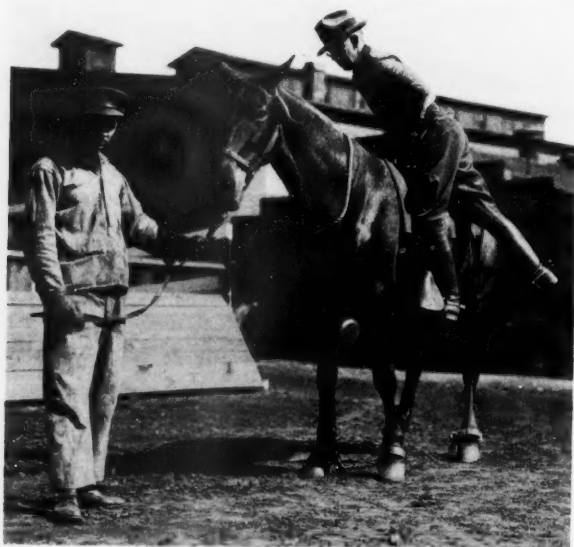


Figure 8—Bearing the Weight on One Stirrup

in the saddle. (See Figure 8). If the horse is predisposed to pitch you, you should be very careful and see to it that you can always jump clear of the horse. Even though the horse is in a chain hobble, sometimes they become frightened and will throw themselves. The horse should be mounted and dismounted on both sides a sufficient number of times so that a definite impression is made on the mind of the horse.

This should end the session in so far as actually handling the horse is concerned. It is a good idea to have someone pass the horse from time to time without paying any attention to him. He should, however, pass near enough, so that the horse will be inclined to work away from the man if he could do so. The person might run past the horse merely

for the purpose of creating a different impression. The horse should be subjected to practically constant treatment throughout the day. Of course there should be reasonable rest periods, but remember, the horse must submit to you. The hobbles should be removed at night to prevent blistering the pastern. If there is not a continued treatment you won't be able to get near enough to the horse's feet to unbuckle the hobbles.

I have never found it necessary to keep the horse hobbled more than one day—with but one exception. This happened to be an exceptionally ambitious (not vicious) animal and a two-day treatment was necessary. Horses that manifest the greatest inclination toward viciousness invariably are the first to submit, but the ambitious, determined animal will resist to the last ditch.

When the hobbles are to be removed, unbuckle the strap from the *hind* legs first. If this is done a bad "mix-up" may be avoided. If the front legs are released first and the horse should not stand while the straps are being released from his hind legs you are in for a lot of grief and things are quite apt to happen in rapid succession. If on the other hand the hind legs are released first, after which he should move out, the horse will step on the chains with his hind feet and down he goes. It is extremely doubtful that such a situation would be created because if the horse has not been brought under submission the hobbles should be left on a second day.

After the hobbles have been put on the horse and he has regained his feet, there should be no restraint on his head during all the treatment. The halter rope should hang free and the horse must react to the necessity of standing and submitting because of his immobility as against assuming the restraint of his movements to be on account of a tight halter rope.

The suggested method of handling bad horses is not offered in the belief that it is the best method or the only way a horse can be brought under submission. Neither is it recommended to anyone who does not have faith in it or want to use it. It is quite impossible to present other than some of the purely mechanical movements which are of minor consequences as compared with the necessity of interpreting reactions and the creation of the right impression on the mind of the horse. Personally I have used this method a great deal and found it satisfactory. I can heartily recommend it to the profession.

The Armies of To-day

(Translated from the German of Colonel-General von Seeckt.)

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The lecture that follows was given at Berlin on 3rd April, 1928, by Colonel-General von Seeckt, who was Chef der Heeresleitung until October, 1926. Von Seeckt was commissioned in 1887 into the Kaiser Alexander Garde Grenadier Regiment. On the outbreak of the war in 1914 he was Colonel and Chief of Staff of the III. Army Corps which fought against the British. Early in 1915 he was appointed Chief of Staff for the XI. Army, under General Mackensen, which shortly afterwards inflicted a severe defeat on the Russians and recaptured Przemyśl. He then became Chief of Staff to the Army Group which overran Serbia, and afterwards Chief of Staff to Tsar Ferdinand of Bulgaria. In 1917 he became Chief of the Turkish General Staff, which post he held until shortly before the Armistice.

When the Kapp Putsch occurred in 1920 and the Government fled from Berlin, von Seeckt was made temporary Commander-in-Chief with full powers to restore order. This he did without firing on the rebels. Shortly afterwards he was appointed Chef der Heeresleitung, which post he held until his resignation in October, 1926. During this period he was responsible for the complete reorganization of the German Army.

Introduction

THE FOLLOWING ideas represent purely my personal opinion, and are devoid of any official character, even though such might be imagined from the consideration of my past career. They are also unconnected with conditions in the German Reichswehr, being purely fanciful conceptions untrammelled by the fetters of the Versailles Treaty. Finally they are entirely confined to land operations, and leave naval questions to be dealt with by the competent experts.

In order to sketch out more definitely my subject, I should like to put forward, and if possible to answer, the following questions: What is the present trend of military development? Are armies still necessary? What will they look like? How will they operate? The fancies to which I shall here give rein are therefore deduced from very real actualities, though I am not blind to the dangers of all prophecies.

The Armies of the Great War

In order to establish a definite starting point, let us first briefly glance at those armies which took the field in the World War. In doing so we come to the astonishing conclusion that all of them were more or less insufficiently organized for the purpose. Comparisons are simplified by the fact that the Great Powers of the continent of Europe had based their defence systems on the principle of universal service, and that all in common endeavoured to deploy on their fron-

tiers very rapidly, and numerically as strong as possible. The brilliant achievements of the German organization need not be stressed here, but three cardinal mistakes may be pointed out. In spite of the universal conviction that a war would be a matter of life or death to Germany, and in spite also of the fact that, at any rate in military circles, we reckoned on a war on two fronts, that is to say with a numerical superiority on the part of the enemy, our national resources were not fully exploited from a military point of view, and universal service was not carried through to its full extent. For sustaining the struggle, i.e., for maintaining reserves, neither personnel nor material was sufficiently provided, and by the same token actual economic mobilization did not exist. We owe it to the foresightedness of Walter Rathenau and the perspicacity of the War Minister Falkenhayn that, after the outbreak of war, at any rate, the necessary measures were taken to hold out economically. Everything was risked on the strength and rapidity of the first blow, although Schlieffen had warned us by pointing out the possibility of another seven years war.

France exploited her manpower thoroughly, as well as that of her colonies. On the other hand her material equipment proved insufficient, especially after the occupation of the industrial districts in the north and east. She was helped out by America's powerful support, without which France could hardly have supplied her own requirements, particularly as regards ammunition.

Russia could not at first draw full advantage from her enormous population; she had available an almost inexhaustible reserve of manpower, and managed to put her reserves into the front line at the right time and tolerably well trained. Against this, however, material armament was and remained quite inadequate. The Allied ambassadors were continually forwarding to their governments requests on the part of Russia for arms and ammunition; her own war industry never reached a stage of any considerable production.

Austria-Hungary was of all the great Powers certainly the worst organized for the war—both as regards personnel and material. The different reasons for this state of affairs need not be considered; the consequences showed themselves in the rapid decline of the striking power of the originally splendid army and in the increasing economic demands made on Germany.

England was organized both for peace and war differently from the continental powers. Although, in military circles at any rate, participation in a big war was considered, little preparation had been made to exploit fully the military resources of the nation. Evidently it had been expected that the Navy and the seven regular divisions,

excellent and immediately ready for action, would have sufficed for the country's needs. For the equipment of this force the national industry, which was efficient enough, was adequate. It was Lord Kitchener's greatest merit that he recognised in good time that efforts of quite a different kind were necessary to produce a final victory, and that he introduced suitable measures. The results produced by English organization during the war were truly astonishing. As the new armies required time to take to the field, the national industry had time to reorganize, and where it failed America came to the rescue.

The United States of America occupied a peculiar position as regards organization for war. Together with the Navy, the comparatively small peace arm sufficed for current needs, and her geographical position allowed America to choose the precise moment for her entry into the World War. When once she had decided to come in, her organization developed an over-whelming activity, which enabled reserves of men and material to produce an army, whose resources were hardly broached at the end of the war.

The situation of the other belligerent states, though differing in detail, was in general similar.

Now to what military success did all this universal *levée en masse*, this titantic mobilization of armies lead? In spite of every effort the war did not end in the decisive annihilation of the enemy on the battlefield. Actually it petered out in the attrition of trench warfare, until the powers of resistance of one of the combatants, as regards personnel and material, and finally as regards morale, were beaten down, without really being conquered by the other's superior force. Was the victor truly elated by this success? Are the results of the war in just proportion to the sacrifices of national resources? When recourse must be made to arms, is it necessary every time for whole peoples to hurl themselves at each other's throats? The soldier must ask himself whether these gigantic armies are still capable of being commanded in the sense of decisive strategy, and whether any future war between such masses must not again end in a stalemate.

Perhaps the principle of the nation in arms, the *levée en masse*, is to-day out of date, the *fureur du nombre* a thing of the past. The mass becomes immobile; it cannot manœuvre, therefore it cannot conquer; it can only stifle.

Post-War Organizations

Let us now glance at the conclusions which the leading powers have drawn from their own experience as regards the organization

of their armies, naturally omitting those states whose armies have been restricted by the Peace Treaties. America and England have in essentials returned to their pre-war organizations, that is to say, to the principles of small peace armies, ready for immediate action; only America has now considerably extended her arrangements for industrial mobilization and for the military training of her youth, while England has developed a strong air arm. France is engaged in reorganizing her army on new lines, the main feature of which consists in the provision and maintenance of a peace army approximately at war strength, and consequently ready for action at short notice. At the same time France adopts a complete system of universal service in order to provide strong reserves. The period of colour service has been much reduced, so as to ensure that all men capable of bearing arms are trained without keeping the peace establishment at too high a level, while the value of the peace army ready for instant action is raised by the retention of a greater number of long-service volunteers. Industrial mobilization and the early training of youth are carefully worked out, as is also the utilization of black troops. The powerful French air force immediately ready for action, is especially worthy of notice. Italy seems to count on supporting her professional army by the employment of Fascist militia and in exploiting actively the military-fascist training of her youth.

Russia, still hampered by many difficulties, but making decided progress, is trying to provide herself with a peace army, ready for use and proportionate to her need for security, and at the same time is endeavoring to gain military control of her enormous manpower by a militia system. In the newly organized armies of Poland, Czechoslovakia and Yugo Slavia we find throughout the pre-war system of universal service, with the period of active service reduced as low as possible and the necessary peace armies maintained in a state of the greatest possible readiness.

Thus it would appear that the practical utilization of war experience has resulted in no great departure from the principles of pre-war days; although new tendencies are becoming very distinct. The general economic situation compels all states to reduce their expenditure in armaments, and in particular to reduce the costliest form of armament—namely strong and fully equipped long-service standing armies, and at the same time to limit as far as possible the unproductive exploitation of the nation's manpower by military service.

The present political situation is such, however, that there is need for a feeling of security against sudden hostile attack. This feeling

of security can only be obtained by the maintenance of a standing army immediately ready for action, and by the desire on the part of each state to be prepared for a war of life and death by organizing its national resistance to the fullest extent. Preparations for a national war are really defensive measures, the scope of which depends on the extent to which one state is threatened or feels itself threatened by its neighbour. This feeling of insecurity cannot be given an arithmetical value in computing the possible extent of disarmament. The only factors which are comprehensible and which can be included in striking the balance, are the figures of the available resources; the greater guarantee of peace lies in adjusting the balance of power rather than in seeking idealistic and unattainable reduction of power. Thus can we shortly dismiss the problem of disarmament.

The basis of war is the struggle between man and material. The shield was invented to meet the sword, the concrete emplacement to meet the high explosive shell, the respirator to meet gas. This struggle will continue so long as war exists, and from time to time the offensive weapon will gain the upper hand until the defence has over-reached it. Science works for both sides. It is, therefore, quite misleading to talk of the triumph of the machine over man. The machine has only defeated mass humanity and not man himself, and never will, for it can only come to life in the hand of man.

The mistake lay in opposing an immobile, almost defenceless mass of humanity to ruthless machinery. The more we increase the masses of our fighting men the more certain becomes the triumph of the machine; for its limits exceed those of the supplies of manpower. The matter therefore resolves itself into a war between the human brain and inorganic matter. As science advances and as more inventions and resources are placed at the disposal of the army, the demands made on the soldiers, who utilize the new weapons, will increase. Anyone who has even a slight idea of the technical knowledge, the highly specialized training, the complicated instruments, and the well drilled morale required in order to control effectively the fire of modern artillery, must admit that these conditions cannot be attained with hastily trained troops, and that such troops are only cannon-fodder, in the worst sense of the word, when opposed to a small number of highly-trained specialists. But what happens when these troops do not exist and when no living target is presented to the machine controlled by science? Destruction of the enemy's army, not destruction of his country, is still the first law of strategy, although sometimes it may appear in a different guise. The machine wins its

victory over the living and mortal mass, not over the living and immortal human brain.

The Air Arm

Whoever speaks of modern military science, will first of all think of the air arm. Partly in the World War, but really only after it, this new arm took its place in full partnership with the land and sea services. Yet there has been no alteration in the principles of war. The soldier and his allied technician merely have to contend with one additional battlefield with its particular conditions. The possibility of air attack on the vital points of national powers of resistance, that is to say on the by no means new but today more readily accessible centres of military strength, has led to false conclusions as to the dispensability of land forces.

The only difference is this: whereas hitherto fighting has been confined to the land and the sea, decisions will now be sought in the air. People are often apt to think that in future the fighting will be carried on above the heads of the soldiers and will be directed exclusively against the civilians in office and workshop. War against the back areas and against the civilian is no new thing in history, and it would be foolish to deny or to make light of the dangers and horrors of air attack on back areas, especially in combination with the use of gas. It brings the same dangers and the same objects into a new theatre of war; active defence against this form of attack is the task of the air arm, which, as the best counter-measure, seeks to carry the attack into the enemy's country, or at least to destroy the attacker. This new danger has given rise to a new demand, the provision of some form of passive defence for the vital centres of a country, though this method is no doubt costly and cumbrous. It is difficult to understand and still harder to justify the fact that we in Germany, to whom active air defence is denied, are doing absolutely nothing in the way of this passive defence.

After this brief examination of the present state of armaments, let us try to picture to ourselves the course which a future war will take.

Hostilities will open with attack and counter-attack on the part of the opposing air fleet, since they form the forces which are readiest for action and swiftest to strike at the enemy. The objective will first of all not be capital towns and sources of power, but the opposing air force, and only after its conquest will the other objective be attacked. When conditions are more or less equal, a decision will not be reached very rapidly, even when one side is forced to remain on the defensive. How far-reaching are the material and moral successes

of the superior attacker depends on the powers of passive and moral resistance of the defender. It must be remarked in this connection that all large troop concentrations form easy and good targets. One of the main tasks of the air attack will be to disturb the mobilization of the enemy's man-power and industry.

The Peace-Time Army

The attack initiated by the air force will be taken over as rapidly as possible by the troops most ready for action, i.e., essentially the peace-time army. The greater the efficiency of this arm, the greater its mobility, the more determined and able its commanders, the greater will be the prospect of its rapidly putting the hostile force opposing it out of action and of preventing the enemy from organizing and sending into action further forces, and perhaps even of compelling him to seek peace. Whilst the two regular armies are engaged in the struggle for the first decision, in their rear will commence the organization of the defensive power of the country. The victor in the first phase of war will attempt by means of his superior armament, training and mobility to prevent the masses—superior in number, inferior in quality—of the enemy from developing their power and particularly from organizing fronts bristling with material, whilst on the other hand he will draw from his own reserves of men and material the support required to maintain his own striking power. I therefore see, to resumé briefly, the future of the conduct of war in the employment of highly efficient and highly mobile armies, i.e., smaller armies, whose effect is considerably increased by the air arm, and at the same time in holding ready the whole of the man-power of the country either for adding weight to the attack or for defending their country to the last.

The need for these modern armies cannot be gainsaid. Their task has been briefly sketched above. It is interesting to speculate as to what they will look like.

The peace-time army, which may also be designated a covering or operating arm, will consist of professional soldiers, if possible of volunteers, serving for a long period. The length of colour service will vary and will depend upon the purpose for which the individual soldier is to be employed, it naturally following that highly technical training will necessitate a longer period of colour service, whilst in other units young men sound in mind and body are required. The strength of this army will be in proportion to the financial resources of the country, its military and geographical situation and its size,

and it must at least provide it with security against surprise hostile attack.

It will be objected that this will provoke competition in armaments; but apart from the fact that the strength of the very costly peace-time army is limited by the financial resources of the country, the strength of peace-time armies offers the best object for international conventions, and consequently for the limitation or adjustment of armaments. It goes without saying that each country will raise this army to the very highest pitch of perfection, both as regards the training of commanders and men, and its armament and equipment. In this connection there are three main requirements, viz., great mobility, to be attained by the employment of numerous and efficient cavalry, and by the utilization to the utmost of mechanized trains and of the marching capacity of the infantry, the best possible armament, and constant replacement of men and material.

For its first entry into action, this army of manœuvre requires at best no additional personnel, or at any rate, only a small increase, therefore no mobilization.

In addition to and in close touch with this army is a permanent training staff, composed of officers, non-commissioned officers and men, through whose training units and schools pass the whole youth of the nation that is capable of bearing arms, with an initial short period of service followed by the necessary refresher courses. This will result in the creation of a force, which although unfit for employment in open warfare and offensive decisive battles, is yet in a position, after completion of its training, such as it is, and adequately armed, to undertake the task of defending the country, and at the same time, by supplying drafts drawn from its best elements, to maintain the fighting field army proper, at full strength. In order to make this short period of training endurable it must be carried out with the youth of the nation, but weight must not be laid so much on the military side as on the physical and mental training. It can take us too far afield to go into the details of this organization, such as the obtaining and training of future officers; but a few words may well be devoted to the question of armaments, which is closely bound up with that of the indispensable economic preparation for war.

Munitions Supply

In discussing this question we must proceed from the principle that any army never, or, at least, only temporarily, possesses the weapon it would like to have, and which is the possible weapon at that particular moment; for as soon as a weapon is introduced it becomes

obsolete owing to the rapid progress of science. The expense of the conversion of the armament and of the re-arming of a large army is so enormous that no country will undertake such measures until actually compelled to do so.

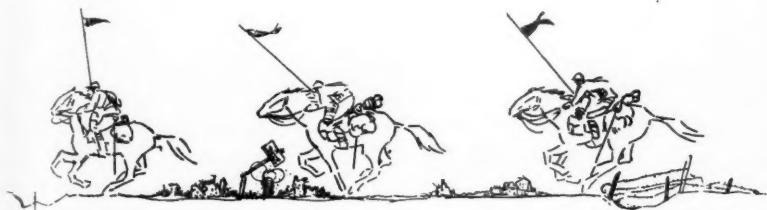
The smaller an army is, the easier will it be to arm it on up-to-date lines, while it is impossible to keep in stock sufficient supplies of modern armament for armies which number millions.

The necessity for having the field army constantly ready for immediate action and armed with the best possible weapons makes it necessary to have armament available in sufficient quantities and of the very best quality. It is also necessary to maintain reserve stocks and to organise sources from which these stocks can be replenished. The cost of this demand has the effect of restricting the strength of such a peace-time-army. But the strength having once been decided upon, not only must the armament and equipment deemed necessary be in the hands of the army, but also the stocks required for initial replacement must be available to meet requirements until the factories, which exist for this particular purpose, start producing fresh supplies. This demand is in itself obvious, and would present no novel feature if we were only dealing with the *levée en masse* of the nation. Actually, the main consideration is the smaller field army, and this places the arming of the nation on an entirely new basis. It is impossible to hold stocks of armament and equipment ready for a modern army of millions if the justifiable demand is put forward that these masses, in view of their inferior military training, require special support from the material issued to them. The accumulation of large reserve stocks is the least economical state of affairs which can be imagined. Further, in consequence of the fact that they naturally soon become obsolete, such accumulation would be of doubtful military value. Think, for instance, of stocking thousands of flying machines, which are frequently rendered worthless after the lapse of a year in consequence of the production of new types.

For the arming of the masses there is only one way; to decide upon the type of the weapon, and then to prepare for mass production when the need arises. The army, allied with science, is in a position, by constant study in experimental establishments and on the training grounds, to decide what is the best type of weapon for the time being. Arrangements should then be made with industry under which the production of this type could be taken in hand at once and in the requisite numbers. This necessitates thorough preparation for which legislation is indispensable. These preparations should be

made in close co-operation between soldiers and economists, who, after deciding what raw materials are required and after making provision for them to be available, would deal with the selection and installation of the factories for all parts of the armament and equipment. To prepare the conversion of factories from a peace to a war footing, and the holding ready of material and plant, naturally require government subsidy in peace time. This, however, will be more advantageous to the State than the acquisition and maintenance of large obsolescent stocks of arms. If the military requirements are framed with a view to rapid mass production by renouncing the finest in favour of the simplest possible material, then the time elapsing between the placing of order and the commencement of deliveries can be reduced to a minimum. This gaining of time is the task of the manœuvre army in the field.

A great number of problems of a military and economic nature suggest themselves in considering these questions. I have been able only to touch lightly upon them here, but I shall feel content if this excursion into the field of military fantasy should result in further attention being paid to these questions.



The Sixth Cavalry Marches Through Dixie

By MAJOR ARTHUR E. WILBOURN, 6th Cavalry

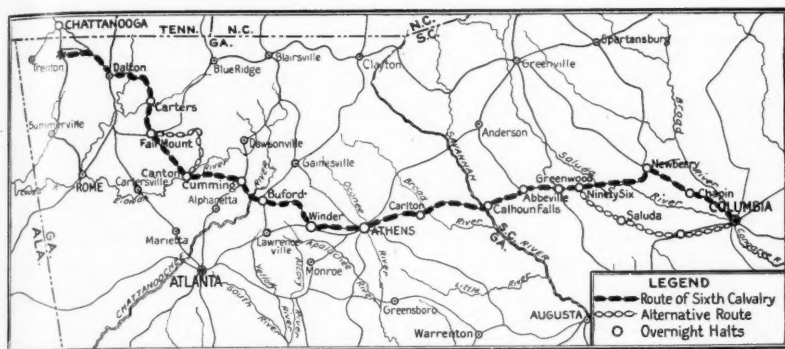
(Continued from the January JOURNAL)

The Camp Jackson Maneuvers

ON ARRIVAL at Camp Jackson, the regiment proceeded to make itself comfortable in camp. Pyramidal tents, iron bunks and straw were issued. Bed sacks had been shipped with other property by freight from Fort Oglethorpe, but on inquiry it was found that the car had been held up at Augusta, along with the 22nd Infantry and the Tank Platoon, by the flood waters of the Savannah River. Rain continued for the next two days. Then came the sun, but not the freight car, nor the 22nd Infantry, nor the Tank Platoon.

The fate of the latter units is of so much interest, in connection with the subject of transportation of troops by motors in unfavorable circumstances, that it will be related here. And particularly so, since the record they left can be compared with the march of cavalry under like conditions. The plan of the Corps Area Commander contemplated the movement of the 22nd Infantry and the Tank Platoon from Fort McPherson, Georgia to Camp Jackson, South Carolina by motor transport, these units to arrive at Camp Jackson, on September 29th. On the 25th of September, these elements arrived at Warrenton, Georgia (see map). On that date, the 6th Cavalry was encamped at Ninety-Six. Both units were subjected to the same weather conditions. The motor columns were not at this time subjected to flood conditions. However, road conditions became so bad before the morning of the 26th of September that the motors were unable to proceed. The command was forced to remain at Warrenton for three days. When it could finally resume its march, two days were required by it to cover the short distance from Warrenton to Augusta.

Arrived at Augusta, the units were unable to cross the flooded Savannah River until five days had elapsed. Having crossed this river, it required one and one-half days for them to advance a distance of eight hundred yards. Competent infantry observers of and participants in this march are convinced that neither foot troops nor cavalry, including their animal drawn trains, would have been stopped or appreciably delayed by the conditions at Warrenton and between Warrenton and Augusta. Also, they are of the opinion that



road conditions north of the Savannah River would have retarded but little the movement of foot troops and cavalry. The 22nd Infantry arrived in Camp Jackson on October 8th. The tank platoon arrived in time for and started out to participate in the last maneuver on the 14th of October. It was not there at the finish, probably because the deep sand at Camp Jackson had the same deterring effect that the mud had had during the previous weeks.

The Terrain

The military reservation of Camp Jackson, South Carolina is three and one-half miles wide and some eleven miles long, its western boundary being about six miles east of Columbia.

Situated on the divide between the Congaree and Wateree Rivers, the area is of low relief and sluggish drainage. Elevations range from 200 to 500 feet. The soil is all but unadulterated sand. Hillocks and some fairly respectable hills, are separated from each other by small swales. Small streams abound. These widen here and there into swamps and morasses. All is covered with dense vegetation, consisting principally of tall native grasses, brush, tall pines, and scrub oaks. The latter seldom rise to a height greater than eight to ten feet. So prolific is the growth that it is generally a great obstacle to the movement and vision of mounted as well as of dismounted men. This growth had obliterated most of the war time roads, trails and clearings, making the 1918 maps of comparatively little use.

The absence of any landmarks, save one or two war time towers; the presence, on every hand, of the dense thickets; and the general sameness of the aspect of the ridges and swales, made it difficult to follow a charted course, even under the most favorable circumstances.

Regimental Maneuvers

The first exercise held was designed to familiarize the command with the nature of the reservation. A point, located at a distance of about four miles from the regimental camp, was indicated on the map. Two routes to this point were also indicated and one was assigned to either squadron. The regiment was then ordered to concentrate at the indicated point. Until this time, no reconnaissance of the reservation had been made by any squadron personnel. It required four hours for the assembly of the regiment at the indicated point. The foliage was so thick and the underbrush so dense that one squadron lost a whole troop from the tail of the column. The commander of this troop had not been informed of the location of the regimental assembly point, and wandered through the brush until he encountered the other squadron. This unit had strayed from its assigned route. Taking the lost troop with it, it finally found an unmistakable guide to the assembly area in the form of a stream bed. Both squadrons arrived at the indicated point at about the same time.

The second regimental problem had been drawn to illustrate the dismounted attack of the regiment. It was solved on the terrain which lay in the immediate vicinity of the assembly point which had been used in the previous exercise. Attack directions were maintained with the greatest difficulty, even though compass directions were announced in each case. Some men got lost from their units in the dense underbrush and remained within a few yards of them for extended periods of time without being able to locate them. It was most difficult to maintain liaison between adjacent units.

During both of these regimental exercises, hostile airplanes constantly flew over the marching columns and over the areas in which units were assembled. This gave the opportunity for much instruction in the taking of cover to avoid observation. The nature of the terrain in every way favored the ground troops in these situations.

Combined Maneuvers

With this limited knowledge of a small part of the terrain, but with a full realization of the difficulties that were to confront it, the regiment participated in the combined maneuvers of the following week. The first of these found the regiment divided, the two squadrons being placed under the command of the infantry regimental commanders. These reinforced infantry regiments were then placed at opposite ends of the reservation. Thus, they were separated by a

distance of eleven miles. The problem was so drawn as to require offensive action on the part of one of these forces and defensive action on the part of the other. Before the problem started, the unit with the offensive mission had to march a distance of seventeen miles. War conditions were to become operative at 5:30 P. M. No troops were permitted to leave camp until 12:00 Noon. Between 12:00 Noon and 4:00 P. M., the cavalry and the horse drawn artillery of this unit covered the seventeen miles. The infantry was drawn by motors.

The commanders of both forces immediately assigned reconnaissance missions to the cavalry squadrons. This gave the squadron which had marched at noon but an hour and a half to rest, feed, water and start on its mission. Since, at that time (5:30 P. M.) it was well in rear of the infantry outpost, it had to march an additional five and a half miles before it could organize its reconnaissance. Both squadrons employed reconnaissance patrols during the night from localities which were well in advance of their respective infantry outpost lines. All of the patrols employed by one squadron returned with valuable information which had to be dispatched to the infantry commander by mounted messenger, since the radio would not work. Some of the patrols of the other squadron were captured during the night. Others obtained information that was of value to the infantry commander. Both infantry commanders were well informed of the location and dispositions of their opponents when daybreak came.

The infantry force with the offensive mission marched at 3:00 A. M., to attack and drive back the opposing forces. The commander employed his cavalry to operate, first against the flanks and rear of the delaying positions which the opposing cavalry occupied along the route of the advance, and finally to operate against the flank and rear of the main position of the opposing forces. During this latter period, flank protecting missions were carried out by the cavalry assigned to the defending forces. The maneuver ended at noon. All troops were in their camps by 1:00 P. M., some having been operating continuously for twenty-five hours.

For the second combined maneuver, all troops were organized into a reinforced brigade to which was assigned a mission which required it to cover the advance of a larger force. The exercise opened with the cavalry holding, against assumed hostile attacks, a position which it had seized and occupied prior to the arrival of the infantry. This position was held with squadrons abreast and horses immobile. The frontage covered was approximately that which would be covered by two infantry regiments in a defensive position. Due to the

short time that this position had been held by the cavalry, no actual organization of the ground had been possible, but the outpost line and the main line of resistance had been occupied. The regimental reserve line also was indicated. One troop was held on this line in regimental reserve. Upon their arrival in rear of this position, the infantry regiments were ordered to take over and organize for defense the sectors which were being held by the cavalry squadrons.

The cavalry occupied this position by 8:00 A. M., the hour when the infantry columns arrived in rear of the position. Anticipating difficulties on the part of the infantry in locating the positions, sector commanders had dispatched guides to the cavalry regimental headquarters. The infantry was ordered to complete its relief of the cavalry by 9:00 A. M., but due to the difficult terrain and the fact that no preliminary reconnaissance was permitted, under the terms of the problem, the relief was not effected until 10:30 A. M. The squadrons now assembled in rear of the position, and marched to the regimental assembly point on the right flank of the position. Delayed by the innumerable wire communications systems which the infantry and the supporting artillery were installing, and forced to cut and corduroy a trail through a morass for their combat wagons, the last of these units did not reach the regimental assembly point until after 12:00 Noon. The maneuver ended when a represented enemy cavalry force drove the 6th Cavalry behind the infantry lines at mid-afternoon.

During this maneuver, the cavalry regiment used an airplane, in conjunction with ground reconnaissance and communication agencies, an airplane having been assigned to the regiment for the purpose. Prior to the exercise, a conference was held with the pilot and the observer. At this conference, the methods to be used by the plane in keeping the cavalry commander informed of the movements of the enemy and of his own troops, were determined upon. So expert did the pilot become in delivering dropped messages that towards the end of the maneuver, most of these were falling almost on top of the regimental identification panels. Communication with the observer was entirely by means of panels since the cavalry radio set could not transmit to the planes. In one case an important message from the Brigade Commander to the Regimental Commander was relayed by radio to the airdrome by the communications section of the rear echelon of Regimental Headquarters, which was located near Brigade Headquarters. This message was flashed from the airdrome to the observer in the air, who, in an incredibly short time, communicated it to the Regimental Commander by dropped message.

At the time this message was received, the Regimental Commander was on the march, some two miles from Brigade Headquarters.

The next exercise was designed to illustrate the attack of a reinforced brigade against an enemy who was occupying an organized defensive position. The enemy position was outlined by flags. The brigade commander assigned to the cavalry the mission of attacking the enemy's left flank and rear, in conjunction with the attack of the remainder of the brigade. The movement of the regiment to its initial position was made without incident. It moved from that location to a position from which it could launch a surprise attack against the enemy's left flank and rear. En route, it was delayed somewhat by the fact that columns of other arms were attempting to use the same narrow trails by which it was attempting to advance. A hasty reconnaissance of the terrain in the vicinity of the enemy's left flank showed that the regiment must make a dismounted attack. The two squadrons were now assigned zones of action and objectives. One troop was held as a mobile reserve. Led horses of the dismounted troops were held immobile. The machine gun troop, after an extended reconnaissance, which required considerable time on account of the denseness of the underbrush and the low relief of the terrain, occupied a position from which it could support the dismounted attack. In the meantime, the dismounted troops had begun to advance in their zones of action. The thicket through which this advance had to be made was so dense and the swampy areas, that had to be avoided, were so numerous, that these two advancing lines actually changed zones of action during the advance, and these had to be re-assigned, accordingly, by regimental headquarters. Communication between regimental and squadron headquarters and the troops was maintained by runners, when such communication actually existed. For long periods of time, higher commanders were in ignorance of the locations of their units due to the difficulties of maintaining communications in such close terrain. They had seen these units disappear into the brush, headed in proper directions and in compliance with their attack orders. Subsequent efforts to communicate with them by the prescribed axes of signal communications frequently failed.

In spite of these facts, the troops did reach their objective and launch a surprise attack against the left and rear of the position. Later, the mobile reserve was used to attack the enemy reserve in rear as it was moving to reinforce the threatened flank. The umpires ruled that the regiment had accomplished its mission.

The next maneuver was drawn to illustrate the advance of a



Prepared to Move Out for a Maneuver

reinforced brigade against the opposition that could be offered to it by a cavalry force; delaying action by the cavalry to a line where it must occupy a defensive position or abandon its mission; and a coordinated attack of this position by the reinforced brigade. At this point, those conducting the exercise were to furnish to both sides such information of other imaginary forces and such orders from high authority as would cause the reinforced brigade to withdraw to a defensive position, the opposing cavalry to harass it during its withdrawal.

To the reinforced brigade (Blue) was assigned one squadron of the 6th Cavalry (less one troop). This force then consisted of all the troops that were in Camp Jackson except the remainder of the 6th Cavalry and an airplane. The 6th Cavalry (less one squadron), with one airplane attached, was to represent the only Red force opposing the Blues during the delaying action phase of the exercise. During the later phases of this action, an imaginary Red Cavalry regiment (to be represented by flags) was to arrive and come under command of the Regimental Commander, 6th Cavalry. This exercise was to open with the two opposing forces separated from each other by some distance, no previous contact having been made by either side. War conditions were to be come operative at 9:00 A. M.

The Red commander planned to advance promptly to contact with the Blues, in accordance with such information as might be furnished by his air observer. Having obtained contact, he proposed to occupy successive delaying positions, in accordance with the developments of the situation. The Blue commander planned to begin his advance at 9:00 A. M., covering himself by an infantry advance guard.

To his cavalry, he assigned a reconnaissance mission. To his air observer, he issued instructions which required that all dropped messages be prepared in duplicate; that one copy of each such message be dropped at brigade headquarters, the other being dropped at the command post of the cavalry; and that brigade headquarters be kept informed of the location of the Blue Cavalry.

Under the conditions of the problem, the Blue Cavalry was not permitted to leave the initial point until 9:00 A. M. At that hour, it dispatched two reconnaissance patrols to cover the terrain on the flanks of the route of advance, and moved forward rapidly on that route, covered by a small advance guard. The point of the infantry advance guard moved out from the initial point at the same hour. Soon the cavalry point encountered the leading elements of the rapidly advancing Red Cavalry, but not until after a dropped message from the air had informed the Blue Cavalry commander of the imminence of contact. Marching hard on the heels of the Blue Cavalry, the point of the infantry advance guard now arrived and the advance guard relieved that portion of the cavalry which was engaged with Red Cavalry on the axis of movement. The Blue cavalry, less its reconnaissance patrols, now moved to the flank to continue its reconnaissance mission and to operate against the flank and rear of the Red delaying positions.

The Red cavalry, warned by its air and ground reconnaissance agencies of the approach of the Blue infantry, now occupied its first delaying position. It was dislodged from this position only after the full strength of the infantry advance guard, which consisted of a battalion of infantry and a battery of artillery, had been deployed against it. In the meantime, the Blue cavalry located the Red delaying position and furnished to the brigade commander detailed information of the Red strength and dispositions. It was prevented from operating against the flank of the Red cavalry by the fact that when the necessary reconnaissance patrols had been dispatched and the required messengers had been drawn from its initially depleted squads, it had only sufficient combat strength available properly to cover its one machine rifle platoon.

After occupying several other delaying positions and holding them until the Blue infantry advance guard had been deployed and launched in attacks against them, the Red cavalry reached its final position. Here it was reinforced by the imaginary Red cavalry regiment. The Red cavalry now occupied a defensive position and the reinforced brigade began its development for an attack.

Throughout the delaying action phase, the Blue cavalry had continued upon its reconnaissance mission. It had been unable, due to the employment of personnel in reconnaissance and messenger service, to act as more than a threat on the flanks of the various Red delaying positions. However, this threat had influenced considerably the length of time that the delaying positions were occupied by the Reds. Red squads, too, were initially depleted. Positions of considerable extent were occupied in order that real delays might be effected. This required so much of the available Red strength that no adequate force was left to guard the flanks effectively against the threatened attack of a highly mobile force. In conjunction with the air service, the Blue cavalry had kept the Blue brigade commander informed of the situation. During the development phase for the attack of the last delaying position, the commander of the Blue cavalry finally was able to assemble sufficient combat strength to act aggressively. But while moving to a position from which he could deliver an attack against the Red rear, in conjunction with the attack of the brigade, he found his further progress blocked by an impassable morass. In the meantime, the attack of the infantry brigade was launched and by dark, the situation had stabilized generally along the line which the Red cavalry was defending.

From this point the maneuver continued with a withdrawal during the night by the Blues and a change of position by the Red cavalry to the Blue flank, also during the night, in order to cover the advance and engagement of the Red infantry at that point. Both moves were executed by the time recall was sounded at 6:00 A. M. and the maneuvers were over.

The Maneuvers in Retrospect

The various exercises were carefully drawn and skillfully supervised. They gave to all those who participated in them, much valuable instruction. They were of especial value in that they gave the various branches and services, which were represented in the camp, opportunities to work with and against each other; to see the other fellow's problems at close hand; to judge of the powers and limitations of the branches and services when working on terrain which was in every sense the enemy of movement and vision; and to become acquainted with and enjoy association with the personnel of other branches.

The value of cavalry to the other arms in conducting their operations on terrain of the character heretofore described, was admirably illustrated. That the cavalry could move through the thick brush

with speed; conceal itself therein with ease; maneuver under cover so as to deliver surprise fire attacks at unexpected places and times; gather and transmit valuable information; and even deliver limited mounted attacks, was demonstrated daily. That it had great power as a delaying agency was conclusively shown on more than one occasion.

Although the deep sand which abounds on the Camp Jackson reservation did not appreciably retard the movement of the cavalry, as was the case with some of its sister branches and services, the swamps and the thick brush did present their problems with great regularity. Many patrol leaders, momentarily abandoning caution in the brush, paid the penalty in capture. Officers of high command, conducting personal reconnaissances, frequently found themselves in the presence of the enemy. One amusing incident of this occurred in the last maneuver. A young cavalry subaltern had been sent by his squadron commander to reconnoiter a trail. He had been gone but a few moments when he returned and said, "The Colonel (meaning the Commander of the opposing cavalry force) is right there in that clump of trees and has only an orderly with him." When this same officer led a squad into the brush a few moments later to capture his colonel, the bird had flown. Frequently, patrol leaders, venturing too close to or attempting to cross a low and swampy piece of ground had one or more of their men engulfed in a bog. In one maneuver, it required two hours for a troop to remove one of its number and his mount from a swamp.

The maneuvers again demonstrated the fact that the Radio Pack Set cannot be depended upon as a means of communication. Only under the most favorable circumstances and after the most elaborate and detailed prior arrangements could communication be established at all. The absence of wire communication of any kind in the regimen was felt seriously in these maneuvers, where close liason with infantry units over very moderate distances for more or less extended periods of time, became possible and desirable; where dismounted attacks in close terrain became the rule; and where many delaying and defensive positions had to be occupied. The presence of a modest amount of wire, in such circumstances, would have saved much horse flesh. The value of the mounted messenger as a sure means of communication did not need to be proven. That the airplane can be used as an all but sure means of communication was demonstrated daily.

From the very first maneuver, the Regimental Commander took great pains to see that the air observer assigned to the regiment understood his plans and had a working agreement with the regimental

communications section. Frequently he conferred personally with the pilot and observer before the exercise began. His efforts in this respect were amply repaid in the quality and the quantity of the work that the air service did for all cavalry units during the whole period of maneuvers. That the air service could assist the cavalry powerfully in its operations and that it could save it much time, labor, and horse flesh, was already known. That it can, by pre-arranged plans and through a thorough understanding of the purposes and needs of the Cavalry, work in the most intimate liaison with it, was shown daily.

These maneuvers were a test of the present cavalry organization. That this organization has many advantages is evident. That it has some disadvantages, the maneuvers demonstrated. A great defect in the two troop squadron was apparent when the regiment left Fort Oglethorpe. One troop had to be left behind. The regiment was minus one-fourth of its rifle and machine rifle strength. A squadron headquarters was needlessly superimposed upon a troop headquarters. During the maneuvers, this defect constantly stuck out like a sore thumb. Always there was this superior commander, without a command, a glorified troop commander in effect, issuing orders because he had become a simple channel of communication and always tending to take actual command of the troop in order to save time. And the same may be said of the two squadron regiment. Once a squadron was detached, as happened to the regiment throughout the maneuvers, the Regimental Commander could not do better than to command the remaining squadron, even though he did have to give orders to a machine gun troop besides. Of course the regimental overhead in such a case is entirely unwarranted. The strength of the platoon also came in for its share of criticism. Never was it possible during the maneuvers to get out three full squads in the platoon. Frequently, two full squads were not available. The great advantages that would accrue from the four squad platoon were daily evident. The platoon should consist of four squads in order that it may be of respectable combat strength for training and on service. A three troop squadron, in regiments serving with divisions and corps, would be more economical in commissioned personnel, would permit of the detachment of troops for reconnaissance without depriving squadron commanders of their commands, and would better serve the needs of the type of combat that cavalry must always employ if it makes maximum use of its mobility. And the same may be said of the regiment. With the present overhead, it could consist of three squadrons. Although it is well known that in war, troops are to be increased to four platoon and regiments to three squadrons, the probability that this may be

realized in any except a major war is slight indeed, when consideration is given to all the factors that enter into the situation. In the first place, it is more than probable that all cavalry units will be at less than peace strength when the emergency arises. If the cavalry is to be used to best advantage, it should be the first to arrive on the scene of action. When it arrives, its strength should be such that it can begin to function immediately. From the beginning, its regiments must be prepared to detach portions of their strength and still be able to operate effectively. So, also, must the detachments they make be able to do likewise. If the Camp Jackson maneuvers were any test of these essentials, it is dangerous for the cavalry to maintain its units at peace strength at all, and it is equally dangerous for it to place itself in the position of being forced to initiate active operations with a defective organization. For it is more than likely that units entering a campaign with the present organization would have to go through it under the same organizational handicap as did the participants in these maneuvers. And this for the following reasons. Should the emergency arise unexpectedly, and most of them do, regiments would enter the theatre of operations at less than peace strength. Their first replacements would have to be used to overcome this defect. In the meantime, they would have begun to incur their daily percentages of losses incident to service. Further replacements would have to be used to fill these and to bring existing units to war strength. Should the campaign develop into a strenuous one, the chances are small indeed that the flow of recruits would be such as would permit of the organization of a third squadron for each regiment, unless the emergency should be so serious as to bring about the passage of a Universal Service Act by Congress.

It must be understood that the above discussion is purely theoretical and that it is based solely on tactical considerations. The difficulties confronting those who must determine the distribution of the personnel available to the cavalry for its peace time activities and training, are fully realized. It is appreciated that practical considerations will not permit of even an approach to ideal conditions as regards peace time strength and organization. It is known that the present organization represents a compromise that is designed to maintain the greatest possible number of active regiments, from the personnel allotted to the Cavalry by law, in order that maximum command and training experiences may be had by all ranks and grades. It is believed that the present organization does function, in so far as these considerations are concerned, and that the desirability

of maintaining as many active regiments as possible cannot be successfully controverted.

The Return March

Breaking camp at about 3:00 P. M., on Sunday, the 20th, the regiment marched to New Brookland, where it bivouacked for the night.

As compared with the march to the east, this journey was all but entirely lacking in thrills. Most of the camp sites used on the outward march were occupied a second time. The animals constantly gave evidences of their locality bumps by the way they stepped out along the route and by the determined manner in which some of them tried to enter old camp sites which were not to be used on the homeward trip. This seems to have applied equally to horses and mules since the trains averaged nearly four miles per hour. It will be noted that no stop was made at Ninety-Six. Some rain fell, as was to be expected. The days were cool and some of the nights were quite cold. Many fires lighted the bivouac areas at night. The same high morale which had been so noticeable during the trip to Camp Jackson and during the maneuvers, continued to prevail during the return march. All but nine animals of the regimental mount completed the journey with the regiment and this in spite of the strenuous usage they had had during the preceding nine weeks. On the return trip, as on the march to Camp Jackson, there were neither absences nor "lates" and there was no sickness.

SPORTS

Indoor Polo in New England

By CAPTAIN P. S. WAINWRIGHT, 122d Cavalry

A SUCCESSFUL indoor polo season was brought to a close at the Cavalry Armory, West Hartford, Conn., on February 28th and March 1st when the New England Elimination Tournament was held to determine the teams from this section which are eligible to compete in the National Indoor Tournament to be held in New York City the latter part of March.

The first night's program resulted in the defeat of Troop A by Troop B, 122d Cavalry, for the first time in four years, by a score of 14 to 8. On the second night the Yale Officers defeated a Class D team selected from the local squad, and known as the Hartford Cavalry Whites, and the Yale Junior Varsity out-scored the Farmington Valley trio in Class C in a close game.

The tournament was officially set in motion by Adjutant General William F. Ladd, who threw the first ball to the players.

Three teams have represented the Hartford Cavalry Polo Association in a schedule of thirteen games which started on December 7th. They are the teams of Troops A and B, 122d Cavalry, C. N. G., and the Farmington Valley trio. They have met combinations consisting of the Yale Officers; 7th Infantry, N. Y. N. G.; Fort Hamilton Officers, Brooklyn, N. Y.; Troop E, 122d Cavalry, R. I. N. G. of Providence; Yale Junior Varsity; Wenonah Military Academy; Squadron A, N. Y. N. G., Class C; Pennsylvania Military College Junior Varsity; and the West Point Officers.

The popularity of indoor polo among the public of Hartford has shown a remarkable growth each year since the formation of the local Association five years ago, and each Saturday night finds the Armory crowded with cheering and excited fans. General and Mrs. Ladd have become enthusiastic followers of the game, and it is a rare occasion which does not find them occupying their box with a party of friends. The inauguration of the game here was largely due to the efforts of Captain T. E. Voight, U. S. A., then on duty with the 316th Cavalry.

Much of the success of the past season has been due to the able coaching of Major H. C. Fellows, Cavalry, D. O. L., Inspector with the

122d Cavalry, who has come weekly from New Haven for the practice play on Wednesday and Thursday nights.

Fort Bliss Monthly Horse Matinees

ALTHOUGH the annual horse shows at Fort Bliss have brought forth many promising four-foot jumpers, the "Olympic prospects" have been few and far between. With a view to developing this class of mounts, monthly "Horse Matinees" are now being held under the direction of Brigadier General Walter C. Short.

Up to the present, two Matinees have been held, the first, in January, in the South Riding Hall, and the second, in February, outdoors in Howze Stadium. In the former, three military classes were shown: a three-foot eight-inch remount jumper class; a three-foot ten-inch novice jumper class; and a four-foot six-inch open jumper class. In the latter, these classes were repeated and a charger class, stressing schooling, added. For the March Matinee, a four-foot nine-inch class has been scheduled.

As the Matinees are not intended to be Horse Shows in any sense of the word, but rather, tests of progress in horsemanship, no cups are awarded to individuals. A non-permanent trophy is awarded, however, to the regiment attaining the highest score. In order to add social interest to the Matinees a ladies' or children's class is added each month to the program, and the main event is followed by a tea-dance at the officers' club. So far, both the Matinees and the teas have been enthusiastically attended.



TOPICS OF THE DAY

Major General W. C. Rivers Retires

AFTER an army career extending from Indian warfare days through the major combats of the World War, Major General William C. Rivers was retired for age on January 11, 1930. His range of experience in the service has rarely been equalled, comprising as it does forty-seven years active duty.

Graduating from the Military Academy in 1887 at the age of twenty-one, he reported for duty to the 1st Cavalry at Camp Sheridan, Wyoming, in time to take part in the field service of that regiment incident to the Ghost Dance troubles among the Indians in 1890-91. Duty at West Point and with the 3d Cavalry in Arizona, then officer in charge of the White Mountain Apaches filled his service until the Spanish-American War. Rejoining the 1st Cavalry, he saw service in Cuba. After a period of detached service in the United States, he went to the Philippines in 1903, there first serving with the Military Information Division, then becoming successively Adjutant General, Inspector General and Assistant Chief of Philippine Constabulary. Thereafter, from 1912 to 1914, he commanded the Constabulary, Districts of Mindanao and Zamboaga, and was Chief of Philippine Constabulary, January to March, 1914. After serving with the 2d Cavalry as Colonel until June, 1917, he joined the 18th Cavalry which was converted into the 76th Field Artillery. Arriving with this regiment in France in May, 1918, it completed its training just in time to take part with its division, the Third, in stemming the German advance at the Marne. The gallant part this regiment took in that famous battle under his command will ever be a source of pride to cavalymen. Participating in the San Mihiel and Meuse-Argonne offensives, General Rivers was promoted to Brigadier General in October, 1918, and was in command of the 5th Artillery Brigade in the Thiucourt-Pont-a-Mousson Sector at the Armistice.

On returning to the United States, General Rivers was successively in command of the Brownsville District, the 12th Cavalry at Columbus, N. M., the 3d Cavalry at Fort Myer until April, 1923. From that date he was detailed in the Inspector General's Department until 1927, when he was appointed The Inspector General, which post he held until the time of his retirement.

With campaign badges ranging from the Indian Campaigns through the World War, General Rivers was awarded the French Croix de Guerre with star and the Distinguished Service Medal. The citation for the latter is as follows: "For exceptionally meritorious and distinguished services, as commander of the 76th Field Artillery, he was a material factor in stemming the tide of the enemy's advance during the second battle of the Marne. Subsequently, upon being promoted to the grade of brigadier general he displayed marked leadership and high military attainments in command of the 5th Field Artillery Brigade in the Meuse-Argonne Offensive."

The good wishes of the Cavalry Service go with General Rivers on his retirement and congratulations on a proud record of service.

Troop E, 3d Cavalry Wins Goodrich Trophy

OFFICIALLY declared winner of the Goodrich Trophy test, in which each Regular regiment entered a troop, Troop E, 3d Cavalry was awarded the trophy at an exhibition ride at Fort Myer, Virginia, on March 7, 1930. The presentation was made by Colonel



The Goodrich Trophy

Guy V. Henry, commanding the 3d Cavalry. Major General Hugh A. Drumm, The Inspector General, and a number of distinguished guests witnessed the ceremony. Following the presentation, the troop gave an exhibition drill.

The officers and non-commissioned officers of the troop participating in the test were as follows: Capt James M. Shelton, Commanding, 1st Lt. D. W. Sawtelle, 1st Lt. G. B. Hudson, 1st Sgt. Lawrence, Sergeants York, O'Brien, O'Connell, Mylor and Field, Corporals Quatickesy, Miller, Williams, Mulgannon, Mann, Reeser, Rogaleskie, Coughlin and Wright.

The Cavalry Rifle Team

LEUTENANT George A. Rehm has been selected by the Chief of Cavalry to organize the 1930 Cavalry Rifle Team. As now planned, the results of regimental try-outs are to be in the office of the Chief of Cavalry by April 10. About fifty of the winners in the regimental try-outs will be selected for the final competitions to determine the representatives of the Cavalry. This final try-out will be held at Camp Perry. No coach has yet been selected, but will probably be named during the final try-outs at Camp Perry.

Acknowledgment

THE JOURNAL is again indebted to Major Norman E. Fiske, Cavalry, for his interest in obtaining material. The article on the activities of the Swedish Cavalry School and the excellent photographs accompanying it were obtained by him on his recent visit to Stroms-holm, following his completion of the course at the Italian Cavalry School at Tor Di Quinto.

Minutes of the Annual Meeting of the Cavalry Association

Washington, D. C., January 31, 1930.

THE meeting was held at the Army and Navy Club, Washington, D. C., this date, and was called to order at 8:30 P. M. by the Vice-President, the President being absent from Washington. Thirty-six members were present in person and 183 by proxy, a quorum.

Upon motion it was voted to dispense with the reading of the minutes of the last meeting and to approve them as published in the CAVALRY JOURNAL for April, 1929.

The annual report of the Secretary-Treasurer-Editor was read as follows:

Washington, D. C., January 31, 1930.

To: The United States Cavalry Association
Gentlemen:

There is submitted herewith, as required by the Constitution, the financial statement for the year ending December 31, 1929, and report of the activities of the Association for the same period.

**Financial Statement of the United States Cavalry Association
for the Year Ending December 31, 1929**

Receipts

Advertising	\$ 4023.97
Book Department	4428.83
Cavalry Journal	4450.03
Interest	642.39
Rent	420.00
Telephone	79.68
Saddle Department	1474.40
Securities	3000.00
Postage, Stationery and Incidentals89
Cash on hand, January 1, 1929	1886.48
Total	\$20406.67

Expenditures

Advertising	\$ 263.40
Book Department	3690.23
Cavalry Journal	4432.00
Rent	1080.00
Telephone	142.17
Saddle Department	1018.23
Securities	2942.23
Salaries	2555.00
Trophies	485.17
Postage, Stationery and Incidentals	542.28
Cash on hand, December 31, 1929	3255.96
Total	\$20406.67

Assets

Cash in bank, December 31, 1929	\$ 3255.96
Two Real Estate Notes of \$1000 each	2000.00
Interest accrued on above	50.00
Two Baltimore and Ohio Railway bonds @86	1720.00
Interest accrued on above	40.00
Two Rio Grande Western Railway bonds @82.75	1655.00
Interest accrued on above	20.00
Two Kentucky Utilities Co. bonds @95	1900.00
Interest accrued on above	41.66
One North Carolina Gas Co. bond @93	930.00
Interest accrued on above	10.00
One Foltis-Fischer bond @97	970.00
Interest on above	32.50
Two Consolidated Gas Utilities Co. bonds @86	1720.00

Interest accrued on above.....	10.83
One Professional Arts Bldg. bond @95.50	955.00
Interest accrued on above.....	10.00
Two Theatre Realty bonds @90.....	1800.00
Interest accrued on above.....	40.00
One Atlantic Gas Co. note @96.....	960.00
Interest accrued on above.....	30.00
Interest due on Trust Fund Savings Bank.....	73.97
Stock on hand, books.....	547.59
Equity in consignment saddlery a/c import tax paid.....	165.39
Office equipment and supplies.....	331.55
Credit at Postoffice, Baltimore.....	32.31
Accounts Receivable {Ledger	2275.82
{F. A. Assn. Rent and Telephone.....	47.54
{Service Advertising, unpaid ads.....	1321.23
Credit with National Service Publishing Co.	12.66
Petty Cash	45.71
Total	\$23004.72

Liabilities

Bills Payable {Ledger Accounts	\$ 148.75
{Telephone, November and December.....	27.67
{Hermes (Exchange at \$.0393).....	223.22
{Salary	75.00
Due Customers on Unfilled Orders.....	45.75
Net Value, December 31, 1929.....	22484.33
Total	\$23004.72

Washington, January 29, 1930.

We, the undersigned, appointed by the President of the United States Cavalry Association, to audit the accounts of the Treasurer of said Association, for the year ending December 31, 1929, do hereby certify that we have examined the books of account, vouchers, and the foregoing statement, covering said fiscal year, and that the same are correct and true, to the best of our knowledge and belief.

GEORGE GRUNERT

Lt. Col., Cavalry (G. S. C.)

W. C. CHRISTY

Major, Cavalry (G. S. C.)

GUY W. CHIPMAN

Major, Cavalry.

Net Assets

The net assets of the Association on December 31, 1928, as presented in the last annual report were \$20,333.72. The present net assets, namely, \$22,484.33, therefore show a gain during the year of \$2,150.61. It will be noted that of the net assets, \$18,395.60 are represented by investments, accrued interest, cash deposits and cash.

Accounts receivable amount to a total of \$3,644.59. Of this amount it is estimated that probably \$500.00, mostly amounts due on 1928 advertising, will prove uncollectable, thereby cutting down the actual net gain in value during the year to about \$1,600.00. It will be seen from this that the Association is operating at a profit.

Investments

The Executive Committee, at its meeting, January 31, 1929, authorized the Secretary-Treasurer to make such changes in the list of securities held by the Association as appeared advantageous, under the advice and recommendation of General F. W. Coe, Retired, of Brooke, Stokes & Co. In March a re-investment was made following the advice of General Coe which resulted in increasing the yield of invested money approximately 25%. The list as given in the above financial statement is at market value December 31, 1929, and shows a depreciation over the purchase price in March of \$473.74 or an average loss of 3.13% for the entire list. The average loss of thirty high grade rails, utilities and industrials during 1929, as reported by the *Wall Street Journal*, was 3.73%. From this it will be seen that our bonds suffered less than the average depreciation. The general consensus of opinion among investment bankers is that an improved bond market may be expected in 1930. The decline in value of the bonds represented by the \$473.75 above mentioned and discounted in the statement of assets may therefore be considered temporary.

Membership and Subscriptions

The following is an analysis of the Association's membership and subscription list:

Regular Cavalry Officers.....	846
National Guard Cavalry Officers.....	222
Reserve Cavalry Officers.....	324
Other Active (Retired Cavalry and General Officers).....	75
Associate Members (Other Branches, Non-Commissioned Officers, etc.)....	35
Honorary Members	3
Life Members	3
Subscribers	330
Exchange, Advertisers, Publicity.....	128
Total	1966

The above figures show 84.6% of Regular Officers, 27.7% of National Guard Officers and 8.8% of Reserve Officers members of the Association. This is a slight gain in Regular and National Guard percentage and a loss in Reserve Officers of 2%, with a total decrease in

membership on December 31 of thirty members. Delay of members in renewing dues makes it difficult to give exact figures on membership, since above figures are for paid members only. An effort is being made to have all members signify their desire to become continuous members; that is, to authorize continuance of membership until they express their desire to be discontinued. This allows us, under Postal Regulations, to continue sending the JOURNAL and to maintain members on the rolls even though they allow their dues temporarily to lapse. It is expected by this method to eliminate the quarterly falling off of membership which has to be regained through circularization.

From the cash statement it will be seen that the dues and subscriptions practically equal the actual expense of publishing the JOURNAL. The other departments are depended upon to support the other activities of the Association and the overhead.

Cavalry Journal

The principal activity of the Association is the publishing of the JOURNAL. Through the past year it has been maintained at a standard size of 160 pages. The policy has been to put surplus earnings into the JOURNAL, trophies, etc., rather than to try to make large clear annual profits. Thus the expense of publishing the JOURNAL in 1929 was \$4,432.00 against \$3,198.01, in 1928. The use of more illustrations and the payment of author's fees at a rate of \$2.00 maximum per page, as authorized by the Executive Committee at the last meeting, it is hoped, have justified the increased cost.

The editor wishes to express appreciation of the efforts of Major Norman E. Fiske and Major R. W. Strong in obtaining and translating the material for the Italian and French Cavalry members of the JOURNAL published during the year. The material could not have been obtained other than through their enthusiastic and energetic efforts.

Beginning with the January JOURNAL, a new department has been instituted, with the heading "Progress and Discussion." It is the intention to make this department a medium for free discussion by members of matters of current interest and to keep readers informed of current developments in either equipment or methods. It is hoped that members will cooperate by contributing ideas, suggestions or criticisms which will be useful to other members of the service. It is felt that many officers have valuable ideas or methods which they hesitate to embody in a formal article for publication, yet which would be of general interest if communicated informally in this section.

Business Departments

As pointed out above, the dues and subscriptions defray the expense of printing the JOURNAL. Other income is derived from the Advertising, Book Department, Saddle Department and interest from invested funds. The advertising has brought an increased income during the year. Under the present arrangement Service Advertising, a New York firm, handles our advertising, in common with the other service journals. Advertising is sold strictly on the basis of the value of the publication as a medium of reaching individual service readers.

The Book Department contributes a profit from the sale of books and magazines. This department shows a decrease in profit for the past year. There was a noticeable shrinkage in the usual Holiday book business, possibly due to general financial conditions at the time.

The Saddle Department shows an increased profit. The Association makes a very small margin on goods sold, due to the present high tariff and increased value of the franc, since all equipment sold is manufactured by Hermes in Saumur France.

Other Departments

The profits from the above mentioned-departments support the overhead of rent, salaries, telephone and trophies. In accord with the policy of using any increased profits in current disbursements for promoting the objects of the Association, a total of \$485.17 was expended for trophies during the year as against \$296.60 last year. The following trophies were donated:

For special 22-calibre rifle for rifle team, \$65.00; Transportation of Goodrich Trophy, \$6.94; Trophy for Fourth Cavalry Polo Association, \$10.00; Secretary, International Equestrian Federation, membership of Association in Federation, \$19.85; Expenses, Rifle Team, \$75.00; Trophy, West Point Horse Show, \$50.00; Medals for Rifle Team, \$134.50; Trophy for best all-around non-commissioned officer of 1929 Class at Fort Riley, \$22.50; U. S. Army Athletic Association, \$2.50; Cup for El Paso Horse Show, \$98.88.

Other Activities

The Association acts as custodian of the fund donated for the Leadership Test for Small Units. \$4190.68 have to date been donated, of which \$3,000.00 have been disbursed for the three annual tests, leaving on hand \$1,190.68 deposited in the Savings Bank.

The Association will hereafter send monthly notification to Cavalry Officers in Washington of officers sick in hospital at Walter Reed.

Suggestions for other services which the Association could legitimately render members are invited.

Upon motion the report of the Secretary-Treasurer-Editor was accepted.

The following were unanimously elected to the office indicated, there being no other nominations:

President: MAJOR GENERAL HERBERT B. CROSBY
Vice-President: COLONEL GUY V. HENRY
Executive Council: COLONEL LEON B. KROMER, *Cavalry*
COLONEL W. I. FORBES, *305th Cavalry*
COLONEL HOBART B. BROWN, *302d Cavalry*
COLONEL GEORGE B. COMLY, *Cavalry*
LIEUT.-COL. GEORGE GRUNERT, *Cavalry*
LIEUT.-COL. JOHN HERR, *Cavalry*
LIEUT.-COL. J. W. CONVERSE, *103d Cavalry*
LIEUT.-COL. A. W. HOLDERNESS, *Cavalry*
LIEUT.-COL. J. J. O'HARA, *Cavalry*

Following the election of officers, a discussion was held of the advisability of combining with other service journals in the future.

There being no further business, the meeting adjourned at 9:15 P. M.

OLIVER L. HAINES, *Major, Cavalry, Secretary.*

PROGRESS AND DISCUSSION

This section of the JOURNAL has been instituted for the purpose of recording the state of development of various items of material in which the Cavalry is particularly interested, progress in technique or tactics and also to encourage discussion of matters of general professional interest to cavalry officers. Suggestions concerning new methods developed and discussions or constructive criticisms of present methods, equipment, etc., are invited. It is believed that there are many practical ideas and improvements which officers are using in their organizations which may be of benefit to others in solving similar problems. If you have an idea or suggestion along the lines indicated, send it in. It will be welcomed.

Some Machine Rifle Suggestions

CAPTAIN A. G. OLSEN, 12th Cavalry

AS he rides the sun-baked trails along the dreary Rio Grand and gazes at the vast expanses of mesquite and cactus that cover the landscape or at similar stretches of milder vegetation found elsewhere, the thought will frequently strike the cavalry officer as to how he could make use of his machine rifles under such conditions of terrain. Another thought may follow as to how they could best be employed as anti-aircraft weapons. He has seen or at least heard of various schemes but all seem to be more or less awkward and necessitate loading down the packs with additional equipment for which no provision had been made in the original issue. Pondering over these problems while leading the troop through the chaparral back of Fort Ringgold, one of those brilliant ideas that occasionally come to even the most wooden of us came to me. The scheme seemed as simple as falling off the proverbial log. Briefly it amounted to this: since the gunner could not see to fire lying down and since the weight of the weapon made any other position impracticable, especially in anti-aircraft fire, why not let the assistant gunner hold the bloomin' thing while the gunner concerned himself only with pulling the trigger? We had with us some loaded magazines so we decided to try it out right then and there to convince ourselves that the notion was feasible.

**Anti-aircraft Firing Position****Using Cover**

It seemed to work all right and the assistant seemed to suffer no discomfort other than a mental one just before the gunner cut loose.

The scheme was developed and tried out in varied situations which required fire on ground targets and on aerial targets. In marching fire the weapon may be employed to deliver a sheaf of accurately aimed shots while keeping up with the assault echelon. As an anti-aircraft weapon it has an advantage over the machine gun in that it may be put into action so much quicker and also in the flexibility of the trajectory.

The following descriptions of the methods as we developed them are offered as suggestions. Perhaps some one else may find that a few modifications would improve upon them. The snapshots illustrate the weapon in action while the gun crew utilizes the cover available.

1. Being mounted in any formation, to engage hostile air-craft, the command is given: **AGAINST AIRCRAFT, FIGHT ON FOOT.** The platoon (squad) halts. Gunners and assistant gunners dismount at once, each gunner runs to unpack his machine rifle while the assistant turns over to the horse holder the gunner's and his own horses. The gunner, inserting a magazine, quickly selects a firing position. The assistant, without the extra ammunition box, joins the gunner and takes his post facing him. Grasping in each hand one leg of the bipod,



Platoon in Action

he raises the rifle over his head. The led horses are immediately taken to cover or dispersed by squads or half squads according to the instructions of the leader. Firing takes place upon command or signal. The assistant gunner assists in reloading by withdrawing from his own and the gunner's belts the magazines as required and hands them to the gunner to insert in the machine rifle.

2. Being in any mounted formation, to engage in immediate action against hostile aircraft, the command is given: 1. AGAINST AIRCRAFT, FIGHT ON FOOT, 2. FIRE AT WILL, the horses of the gunners and the assistants are habitually turned loose and firing is begun as soon as the gun is ready. Loose horses are collected by the horse holders and men not actually required in the service of the machine rifle. Led horses are disposed of as in the foregoing paragraph.

Each gunner and assistant gunner carries, in the first pocket on the right of his belt, forty rounds of ammunition in two magazines reserved for use against aircraft. Fifty per cent of the ammunition should be tracer.

The immediate delivery of fire upon low-flying and quickly moving targets being of paramount importance, the exact alignment of guns is neither practical nor desirable. However, in selecting his firing position the gunner should make use of the cover offered in his immediate vicinity to hide his position from the air. Should time permit the leader should place his guns so that the approaching situation may be met in the most efficient manner.

To employ this method in marching fire, it is modified by causing the assistant gunner to face to the front. He supports the machine rifle over his right shoulder, taking care that the forearm of the piece is well forward and that his cheek is held away from the hot rifle barrel.



Marching Fire

For use against ground troops while firing from a fixed position, the assistant may be posted as in anti-aircraft action. The gunner and assistant by standing, crouching, or sitting accommodate themselves to the cover.

To reassure the sceptical, the weapon has been fired in the above described positions and found to be both practical and safe.

Notes From The Cavalry Board

THE Thompson sub-machine gun, Navy Model 1928, has been modified and will be tested again by the Cavalry Board in connection with maneuvers to be held in May and June at Fort Riley by Troop A, 2d Armored Car Squadron. The tests will be for the purpose of determining the suitability of this weapon for use in close defense of armored cars and also the advisability of issuing a certain number to line troops for use in patrols and outposts.

A redistribution of machine gun pack loads is under consideration with a view to placing the picks and shovels on the gun loads instead of on the instrument pack as now carried.

Experiments being carried out on modification of the 37-mm. gun mount by the Cavalry Board indicate that a much simpler and smaller mount is practicable which will obviate the difficulties caused by the present trial which makes a difficult load due to its length.

Experiments are contemplated this spring on a new type of aerial target. By use of a long, suspended cable it is expected to operate the aerial target at the actual speed of a plane in flight, which will allow data to be obtained on the efficiency of ground fire of the various weapons used by the Cavalry. It is expected that by means of this special equipment more nearly actual conditions can be simulated than

heretofore possible. The results of these tests, which will be carried out by the Cavalry School, are expected to be of great value in definitely indicating the results which may be expected from ground fire against aircraft.

The saddle, training, model 1926, manufactured at the Jeffersonville Depot, is now being tested by the Cavalry Board. It is expected that this saddle will prove satisfactory. It is of the Saumur type. None are for general issue or sale as yet.

The new radio pack set, SCR-163, is now undergoing test by the Cavalry Board. Six of this type have been manufactured, three being issued to the Board and three to the 1st Cavalry Division for test. The Cavalry Division has completed its test and reports received on the set to date are very favorable. This is a two-horse pack, high frequency, short wave set, with a sure range of forty miles. The generator is a small and very easily operated machine, capable of being turned with one hand. Communication has been had with it over 200 miles in Texas, although such performance may be due to local conditions. It is known that short waves leave the earth at certain distances from the set and travel for a period high in the air, creating dead spaces in which reception is poor or impossible. The exact distance from the set that the waves leave the vicinity of the earth is not as yet definitely known and probably varies at different localities and under different atmospheric conditions.

Training Regulations 425-120, Pack Transportation, is now being prepared in original draft by Colonel A. B. Phillips, Cavalry. Colonel Phillips is detailed with the Quartermaster Corps at Jeffersonville Depot, Indiana.

The New Cavalry Field Manual

THE Cavalry Field Manual (Tentative) has been issued to regiments of the Regular Army, National Guard and Reserve. This combines in one volume all the material now in training regulations which should be carried for ready reference by officers and non-commissioned officers. When approved in its final form it will do away with most of the Cavalry training regulations. Part I is devoted to Characteristics, Organization and Weapons. Part II covers Training, Drill and Combat formations, Ceremonies, Inspections. Part III is devoted to Tactical Employment. In form the volume is four and three-eighths by five and a half inches, with 441 pages of text. The prefatory note states: "The Cavalry Field Manual in tentative form is published for the use and guidance of the Cavalry pending approval and publication by the War Department. Comments and constructive

criticism are invited and should be promptly submitted to the Adjutant General." Inasmuch as some changes in the drill are made, and a great deal of material has been included in this volume, the careful scrutiny by the service will doubtless bring to light numerous desirable changes before the text is approved in final form. Now is the time to discover such parts as can be improved and the responsibility is in great part now on the officers serving with organizations to study the manual carefully and make constructive suggestions and criticisms. It will in the future be the Cavalryman's Bible; all the experience of the service should contribute to bring it as near perfection as possible.

Copies of the Cavalry Field Service Manual can be obtained by individual officers from the Book Department of the Cavalry School, Fort Riley, Kansas.

New Experimental Armored Cars

ELEVEN new experimental armored car vehicles are now under construction by the Ordnance and Quartermaster departments in collaboration and will be completed by the end of the present fiscal year. These will be turned over to Troop A, 2d Armored Car Squadron for test. Five of these vehicles are on a small and extremely light commercial chassis protected by a minimum of armor. They have no resemblance to the present light type, in that they are completely enclosed. Six of the new cars will be on the new three-quarter-ton truck chassis developed by the Quartermaster Corps, having a four-wheel drive, ninety-five-horsepower, air-cooled engine, with speed up to sixty-five miles per hour on the road and able to make a ten per cent grade in high gear. Two of these vehicles will be equipped with dual steering for movement in either direction. From conclusions drawn from the tests of these vehicles, together with results of the service tests of the vehicles now in the hands of Troop A, 1st Armored Car Squadron at Fort Bliss, it is hoped to crystallize thought more definitely as to what type of wheeled armored car should be adopted for the Cavalry. It is not, however, to be expected, in this day of rapid change in mechanical materiel, that any final standardization can be reached.

ORGANIZATION ACTIVITIES

1st Cavalry Notes

ON December 8, 1929, General Abundio Gomez, Commanding the 5th Military District of Mexico, with Headquarters at Chihuahua, accompanied by Brigadier General Gil and ten other staff officers, visited Fort D. A. Russell. These visitors from the Army of Mexico were received at the Commanding Officer's home, given lunch at the 1st Cavalry Club, and entertained during the afternoon by an exhibition polo game.

On departing General Gomez invited Colonel Fair, his polo players and all the officers and ladies of the 1st Cavalry to visit him. Later a formal invitation was extended to the 1st Cavalry by General Gomez to visit Chihuahua February 22d to 26th. He stated that his purpose was to have the Mexican Cavalry become better acquainted with the Cavalry of the United States, and to cultivate good friendship between the Armies of the two republics. In addition he desired to have a three-game tournament between the 1st Cavalry Polo team and his team from the 20th Cavalry of Mexico.

Permission was obtained from the War Department to accept General Gomez's courteous invitation.

On the morning of February 22d, the Commanding Officer, 1st Cavalry, accompanied by eight ladies, twelve officers and ten enlisted men of the regiment, and twenty ponies, crossed the Rio Grande at Presidio. Thirty of the representative citizens of the Big Bend, many of them accompanied by their wives, went with the 1st Cavalry as the guests of the Chihuahua Chamber of Commerce. At the Border the northern visitors were received by representatives of the military forces and of the civil government of Mexico. Arriving at Chihuahua, three thousand people met the train carrying the Big Bend visitors. A Mexican Band of sixty-seven pieces, gave a beautiful rendition of the Star Spangled Banner, followed by the Mexican National Anthem.

General Gomez and a staff of twenty officers, representing the military forces of Mexico; Governor Almada; General Vernal, representing the Mexican Secretary of War; and the President of the Chihuahua Chamber of Commerce received the visitors, and after welcoming them to the city, escorted them in automobiles to hotels.

Not long after their arrival, this radiogram was received by Colonel Fair from the Mexican Secretary of War:

"Gentlemen:

"You have done us the honor to accept the invitation made by General Gomez to visit Chihuahua City as the guests of the Fifth Jefatura de Operacions for a friendly fight on our Polo grounds against our Cavalrymen. We do feel very happy to have you here with us on Mexican soil where you are very welcome. During your visit, we contemplate to show you our appreciation for that great American people of yours, we all admire, and specially for the glorious institution to which you belong.

"In behalf of the Mexican Army, of General Gomez and in my own, let me wish you a pleasant and happy stay in Chihuahua City, and when you go back to the States, please carry our friendly greetings and salutations to your brother officers, as well as our best and sincere wishes for the American happiness and prosperity. Amaro."

Sunday morning all visitors were conducted by General Gomez and his Staff to the National Palace where they were received by Governor Almada. Next they were received by the Mayor of Chihuahua who gave the guests the freedom of his city. Last of the important official visits was made by all, to the offices and headquarters of General Gomez. Refreshments were served at each place visited that morning. The visiting Americans received full assurance of the friendship and good feelings toward them from the Army and people of Mexico. Late that afternoon the party visited many places of historical interest, and attended the Y. M. C. A. athletic events. That night the great fiesta, given for charity, took place, and all visitors were there. Dancing, music, and special performances in beautiful and striking costumes featured the "Gran Noche Mexicana." The last guests departed for their hotels at daybreak.

On Monday, General Gomez entertained the visitors by giving an exhibition drill by a company of his 33d Infantry Battalion. That afternoon all guests and thousands of Mexicans were entertained at the bull ring, where there was a fine exhibition of riding and roping.

After the third polo game on Tuesday, the visitors repaired to one of the large theaters where, before a crowded house and all high officials, the Mexican Polo Team was awarded a handsome silver loving cup. Here there were many expressions of good will and friendship. It was evident that the Army of Mexico and the people of Chihuahua are sincerely friendly to the United States. The last night of the visit was made memorable by the Grand Ball in the reception room of the Palace.

The Mexican Polo Team defeated the 1st Cavalry Team in all

three games. Their horses far outclassed ours. This Mexican Polo Team would make a good showing in any high goal tournament. They have a fairly good bare ground field at Chihuahua. The same team played all three games against us. It was composed of the following officers:

- No. 1. Captain Juan Garcia
- No. 2. Captain Jose Angeles
- No. 3. Captain Florentino Comacho
- No. 4. Major Jose Kennedy (Captain of the Team).

Keen interest in mounted sports continues. Horse shows once a month, with generous programs of jumping are well attended by towns-people as well as members of the garrison. A special feature of each show is an exhibition class of Olympic Prospects. In the last show these jumpers were put over Course "A" without wings.

Flat racing, however, is the most popular sport with the spectators. The monthly Race Meeting draws enthusiastic followers of the "Sport of Kings" from the surrounding country and Race Day is a gala occasion for the post. The ninety-seventh anniversary of the Regiment was the occasion of the last meeting.

Since January first, the eight horses of the 1st Cavalry constituting the Olympic Prospects have received daily work in schooling, jumping across country. These horses, *Hazel Gloarning*, Dressage or three-day event; *Dark Rosaleen* and *Bloomfield*, three-day event; *Kitty*, *Columbine*, *Ansonia*, *Wing*, *Concho*, *Oscar* and *Tyrol* in training for the Prix Des Nations are beginning to show the results of training and regular work. Captain Frank Nelson, who has these horses and their riders in charge, is very optimistic about the chances of these prospects and expects to find several of these horses in the try-outs a year hence.

Major Horace T. Aplington has departed on leave of absence prior to a permanent change of station with the organized reserves, New York City; Major Philip H. Sherwood has recently been assigned to and joined the regiment; 2nd Lieut. Samuel L. Meyers has been relieved from detail in the Air Corps and has joined; 2nd Lieut. Paul W. Shumate has been relieved from detail in the Air Corps but has not yet joined; Captain Harrison S. Beecher departed on February 28th for the Army and Navy General Hospital for observation and treatment; 2nd Lieut. Charles R. Pinkerton has been detailed in the Ordnance Department, effective June 15, 1930.

2d Cavalry Notes

THE Regiment has been engaged in the usual garrison duties. In addition the small bore rifle practice competition is being carried

on. Troop "B" and the Second Squadron each sponsored a successful horse show during February.

Orders have been received announcing the promotion of 1st Lieut. Garnett H. Wilson, to the grade of Captain. Lieutenant and Mrs. Harrison W. Davison, lost from the regiment last September through his detail to the Air Corps training school, have rejoined the regiment. Lieut. Basil G. Thayer, 26th Cavalry, has been assigned to the Second and is expected to arrive in time to assist in the summer polo activities of the Regiment. Since the last issue of the Journal, Lieutenants George W. Bailey, Jr., and Ralph M. Neal left for their new station in the Philippines.

3d Cavalry Notes

THE 3d Cavalry (less 1st Squadron) has been engaged with the winter exhibition rides since the Christmas holidays. The rides and tea dansants now are considered outstanding events in the Washington social season, being attended by members of the Army, Navy, Marine Corps, members of Congress and the Diplomatic Corps. Mrs. Hoover and a number of her guests were interested spectators at one of the rides. Mrs. Summerall is in frequent attendance at the rides and at the tea dansants which are given immediately following the rides. A number of new events have been perfected so that it is now possible to stage a different program each week. The rides have been so enthusiastically received and the demand for tickets so great that it is now necessary to reserve seats at least ten days prior to the exhibitions.

Rehearsals have already been started in preparation for the annual Society Circus which is the culmination of the riding hall season. Over forty of Washington's debutantes and thirty children are busily engaged in practice. They will participate in an historic pageant, the tandem drill, the musical quadrille and the hunt ride. The remaining acts will be staged by the personnel of Fort Myer.

The regiment participated in the Washington's Birthday celebration held at Alexandria, Virginia, on February 22, 1930. The parade was reviewed by President Hoover, Secretary Hurley and Governor Pollard of Virginia. Major General Fred W. Sladen, Commanding the 3d Corps Area, was grand marshal of the parade. He was assisted by the Corps Area staff and the staff of the 3d Cavalry.

Troop E, 3d Cavalry, has been awarded the Goodrich Trophy for the year 1929. The troop staged a complete ride for the members of the garrison and their guests on Thursday, February 27th. It consisted of a troop entrance, gymnastic ride, platoon jumping, officers and non-

commissioned officers jumping, a fire jump demonstration, musical drill and exhibition of high jumping by Sergeant York and his horse, *Levi*. Following the exhibition the Commanding Officer and the members of the Goodrich Trophy board were guests of the troop at dinner.

Troop F, 3d Cavalry, held a circus and dance for the members of the garrison and the guests of the enlisted personnel. In addition to the usual riding hall stunts the troop staged a camp scene, clown stunts and a minstrel act. Following the circus all adjourned to the Service Club where the dance was held and refreshments served.

4th Cavalry Notes

ON Friday, February 28, all remounts, forty-seven in number, were turned for duty with troops. These remounts have been undergoing training for several weeks, under a detachment especially detailed for the work, commanded by 1st Lieut. C. W. Feagin, 4th Cavalry. The result of their training reflects creditably on the detachment under which they were trained.

Organizations and individuals began indoor rifle practice on Monday, January 27.

A number of pheasants have been released on the reservation and precautionary measures have been taken to protect this fine game bird during the coming season.

Members of the Post Gun Club made use of the warm weather on Sunday, February 16th, and met for a few hours of clay pigeon shooting on the club range. As the weather moderates trap shooting will be a weekly event every Sunday morning.

On March 3d, the 75th anniversary of the organization of the 4th Cavalry was celebrated. All duties were suspended for the day and the celebration began with serenades by the band marching around the post at reveille and playing the regimental march "Riders for the Flag" and other selections. The formation "Escort to the Standard," scheduled for the morning and the baseball game scheduled for the afternoon had to be omitted due to the inclement weather, but very impressive substitutes were made. The Standards were escorted to each organization where inspiring talks were given on the regimental history, standards, decorations and coat of arms. At noon the field music marched around the post playing the regimental march. In the evening the enlisted men attended free moving picture shows in the gymnasium of especially selected pictures. The officers and their families and friends attended a dance in the evening, held in the post auditorium which was prettily decorated with guidons, sabers and machine guns. A very impressive ceremony took place during the

dance when the regimental standards were escorted to the center of the hall and the field music played appropriate airs. Later in the evening a large photograph of the Colonel of the regiment was displayed, inaugurating the custom of each year placing in the officers' club at Organization Day a photograph of the Colonel of the regiment, if it had not already been placed there.

A very elaborate booklet was given to each member of the regiment, embodying therein a history of the 4th Cavalry and Fort Meade and containing photographs of the organizations and individuals of the command.

The following changes amongst officer personnel has taken place in the post since last issue of the Journal: Arrivals are: Colonel W. L. Luhn from leave; Captain and Mrs. J. I. Gibbon from leave; Captain A. H. Besse from leave; Captain F. F. Duggan from Cooks and Bakers Course, the Cavalry School; First Lieut. O. M. Massey from recruiting duty, Toledo, Ohio. Departures are: Major S. V. Bingham to leave of absence; Major Howard A. Hale, D. C., to Detached Service Fort Snelling, Minn., and Fort Lincoln, N. D.; Captain W. R. Mobley to 10th Cavalry, Fort Huachuca, Arizona. Captain Gardner R. Jones, Veterinary Corps, has been assigned to the regiment, effective upon completion of his course of instruction at the Veterinary School, Carlisle Barracks, Pa. First Lieut. A. F. Forsyth has been assigned to command of the Machine Gun Troop vice-Captain W. R. Mobley transferred to 10th Cavalry. First Lieut. O. M. Massey has been assigned as Post and Regimental Personnel Adjutant, replacing Lieut. Forsyth who formerly held that office.

5th Cavalry Notes

WITH the opening of the New Year the Regiment entered upon the training in preparation for the tactical inspection which will be made by the Brigade Commander the latter part of March. This training which has included a weekly Regimental problem together with the garrison and unit schools has kept all members of the Regiment well occupied during the winter months.

The horse shows which have been held periodically during the winter months have kept up the interest in this branch of the sport.

For the show on January 19th Mrs. Wm. M. Roberts of Baltimore, Md., a house guest of Major and Mrs. Wilfrid M. Blunt donated a handsome silver cup to be awarded the winner of the Class for Green Hunters. After a very close contest Captain Boudinot, 1st Cavalry Brigade, riding the government mount *Gipsy* was awarded the cup and blue ribbon. Captain Rieman was second with his private mount

Royal Watch while Major Chandler, 1st Cavalry Brigade, was third with the government horse *Omega*.

The interest and active participation in polo continues. Games are held three times a week. In the slow periods green ponies are worked in, and new players given an opportunity to play.

March 3rd being the seventy-fifth anniversary of the Regiment, the day was observed as a holiday and an appropriate ceremony was held in the morning at the Service Club where the Regiment was assembled. This was followed by the annual baseball between the 1st and 2nd Squadrons and in the afternoon there was a dansant at the officers club which was attended by the members of the garrison and their invited guests.

6th Cavalry Notes

THE month of February was devoted to Squadron training and regimental maneuvers. A series of five maneuvers coming generally a week apart was participated in by the regiment, assisted by a battalion of the 22d Infantry and two observation planes which were sent to Fort Oglethorpe each week with pilots and observers from Maxwell Field, Ala. The maneuvers were conducted by Colonel E. H. Humphrey who on all except one occasion acted as the chief umpire. Various kinds of cavalry missions were most successfully carried out and the interest manifested by the Non-Commissioned Officers and enlisted men as well as the Officers was the outstanding feature.

The officers of the regiment are all enthusiastically engaged, under direction of Major Arthur Wilbourne, in the training of remounts and the development of horse-show prospects which have recently arrived for the regiment. Polo pony training has been under the direction of Major Terry Allen. The prospects for polo are exceptionally bright. A ladies riding class has been added to the horse activities of the post and weekly horse shows for the entire command is also an added feature.

The regiment is expecting orders to go to Atlanta, Ga., early in April for the purpose of participating in the Atlanta Horse Show and polo matches to be held in connection with the show.

Troop F under the command of Captain George Goodyear made a splendid showing for the regiment by being placed fourth in the Goodrich Trophy Test.

Troop E under command of Captain William R. Stickman will proceed by marching to Camp Knox, Ky., for the purpose of assisting in the summer training at that camp. They will leave the early part of June.

Plans for a new swimming pool for the officers, a gift from the citizens of Chattanooga, are now under way and the pool is expected to be completed before the hot weather starts.

7th Cavalry Notes

SINCE the beginning of the New Year The Garry Owens have been successful in maintaining a standard of hard but interesting work combined with numerous pleasant activities.

The training for the most part has been in the field. The schedules of the troops show that, out of the six days a week, three or four have been devoted to problems outside the drill ground. The problem of defense against airplanes has been stressed, experimented with and taught the troops, and it is believed a fair amount of success has been accomplished. Experiments have been made in the defense and offense against armored cars. From them many valuable solutions have been found. The principle of field work is continuously emphasized.

And just as everything must be repaired, so is the situation in the 7th Cavalry Polo Machine. The horses suitable for fast tournament polo have become fewer in number since the last tournament. Consequently a scheme has been put into operation whereby a group of new remounts has been picked to be developed into good polo ponies before the next busy polo season. It is expected that by then the Garry Owens will have a string of ponies as good as the best.

In the Division Tournament held at San Antonio, one promising young player, Lieutenant Harkins, was chosen from the 7th Cavalry to play on the Fort Bliss team. Lieutenant Harkins did some beautiful playing in the tournament last fall.

A Hunt Breakfast or Treasure Hunt, a Ladies Bridge or a dance has been held every week much to the pleasure of officers and ladies in the regiment. On February 14th a very successful Valentine Costume Dance took place at the Officers' Club.

The Garry Owens greeted with pleasure their new Commander, Colonel Charles F. Martin about February 7th. Colonel Martin has just come to us from the Cavalry School at Fort Riley. Other new arrivals are Major Gerald D. France, Medical Corps, and Captain Winfred Houghton.

9th Cavalry Notes

CAPTAIN RUSSELL C. WINCHESTER, after seven months on detached service at West Point and Governors Island, N. Y., with the U. S. Army Horse Show Team, was assigned to the regiment. Captain Winchester joined November 20, 1929, and assumed command

of Troop G. He has been detailed on special duty with VI Section, Academic Division, The Cavalry School, in connection with the development of horses for the Olympic Equestrian Team, in addition to his other duties.

The regiment was host at Christmas Dinner, December 25, 1929, to about three hundred guests, which included the Commandant, officers of the post, prominent citizens of Junction City, and the families and friends of the enlisted personnel of the regiment. There was dancing by the enlisted personnel at the 9th Cavalry Club, from 8:30 P. M., until midnight.

Lieutenant Hayden A. Sears, spent ten days during the month of January, at Fort Worth, Texas, inspecting horses at that place for Olympic prospects.

Lieutenant Colonel Charles L. Scott, was transferred from the Quartermaster Corps to the Cavalry, and assigned to the regiment February 5, 1930. He was detailed on temporary duty at Washington, D. C., in conference with the Chief of Cavalry, in connection with the training of the personnel of the Cavalry. Upon completion of this temporary duty Colonel Scott availed himself of ten days leave of absence and reported at this station March 3, 1930. He has been placed on special duty with the Academic Division as Assistant Director.

Major General Herbert B. Crosby, Chief of Cavalry, arrived at the post, Sunday, February 16, on an official visit, and departed on February 19th.

Orders have been received relieving Captain Paul C. Febiger, from assignment to the regiment, effective on or about June 15, 1930. Captain Febiger is directed to report to the Commandant, the Command and General Staff School, Fort Leavenworth, Kansas for assignment to duty.

The retirement of Staff Sergeant Gibson Thompson, Headquarters Detachment, 2nd Squadron, November 29, 1929, was celebrated at the 9th Cavalry Club, December 12, 1929 with an appropriate program followed by dancing until 12 o'clock midnight. Refreshments were served.

10th Cavalry Notes

SINCE January 1, 1930, the regiment has been very busy handling a post repair program and drilling at the same time. Barracks and quarters are being given a thorough overhauling, roads are being repaired, etc. It is expected that this work will be completed by March 31st, when uninterrupted training can again be started. The Chemical Warfare Officer of the 1st Cavalry Division will conduct the Chemical

Warfare Training of this regiment during April and May preliminary target work is begun. A few copies of the new Cavalry Field Manual have been received and training is being conducted in the manner prescribed therein. We all welcome this compact book in lieu of the voluminous Training Regulations and hope that it will soon be adopted as the official textbook for cavalry. Troops have individually taken a one day march each month since the first of the year and squadron overnight hikes were taken in March.

A great deal of enthusiasm is being shown by the officers training the 10th Cavalry horses in preparation for the 1932 Olympic Games to be held at Los Angeles, Calif. Our particular assignments were the two equestrian events: The Prix des Nations and Equestrian Championship. Lieutenant F. P. Tompkins has been placed in charge of the training and, assisted by Lieutenant Walter Burnside selected the mounts and organized the training. Training has been outlined with the idea of bringing all mounts to their maximum state of efficiency about September 1, 1930; at which time it is contemplated tryouts will be held and any suitable prospects sent to Fort Riley, Kansas, for further training. In addition to Lieutenants Tompkins and Burnside the following officers are working one or more mounts: Lieutenant Frank Turner, Lieutenant Raymond W. Curtis, Lieutenant Thomas F. Trapolino, and Lieutenant Chandler P. Robbins.

Thirteen horses are now being trained, five for the Equestrian Championship and eight for the Prix des Nations. Two of these mounts are privately owned, six have had considerable previous training and five have had practically no training of this type. Although it is possible that no material suitable for the Olympic Games will be developed, it is believed that a strong regimental horse show combination will result.

Captains Wiltshire and Patton and Lieutenants Tompkins and Stockton went on a hunting trip into old Mexico between January 16th and 26th. They reported a good time and many ducks but no big game.

Word has been received that Colonel McCaskey hopes to return to this post from sick leave about April 1st. Captain Hurt has returned from Walter Reed General Hospital. Lieutenant M. J. Asensio has been transferred to the Corps of Engineers and expects orders transferring from this post. Lieutenant N. F. McCurdey left on January 28 for the Philippine Islands. Lieutenant-Colonel T. L. Sherburne, present on duty at the Army War College and Captain W. R. Mobley at present on leave of absence have been assigned to the regiment.

11th Cavalry Notes

THE regiment completed a very successful qualification season this year making high averages in all the Cavalry weapons. The following qualifications were made with the rifle: Headquarters Troops, 94.82 per cent; Troop A, 96.22 per cent; Troop B, 98.18 per cent; Troop E, 96.49 per cent; Troop F, 100.00 per cent; Detachment at Fort Rosecrans, 100.00 per cent; regimental average, 97.51 per cent.

Our shot-gunners did pretty well, too, qualifying 100.00 per cent with their machine guns.

Since the qualification season, there have been frequent marches to Gigling Reservation for combat firing and field exercises to break the monotony of the routine garrison duty.

On February 28, 1930, a platoon of selected men from each troop and a section from the Machine Gun Troop participated in anti-aircraft firing. The firing was done at towed targets. The target, the first time, passing parallel to the firing line, and next time, over the heads of the riflemen. This was something new to all of us, and although some hits were made, we found out that there was much to be learned about firing at airplanes and much practice required to make it effective.

There was much interest shown on the post in basketball last season. Troop F won the championship. A post team was picked to compete for the Corps Area Championship. This team under the coaching of Lieutenant August W. Farwick, 11th Cavalry, made an excellent showing, but was finally defeated by Fort Scott.

The Post Baseball League started March 3d, and all of the organizations of the post are now bending their efforts toward the training of a championship team.

An Enlisted Men's Gymkana was held February 20th in which all organizations took part. It was enjoyed by officers and their families as well as by enlisted men.

We are now looking forward to a horse show to be held March 27th.

In the first low goal tournament, the 11th Cavalry Team reached the finals and was eliminated by Del Monte, but they won the second about two weeks later by defeating San Mateo.

Fort Brown Notes

MANEUVERS in May involving the troops in San Antonio and the lower Rio Grande Valley make an early target season necessary this spring. The troops march 100 miles to Fort Ringgold for

target practice. So this winter became a very active training season with preparations for maneuvers, target practice and the mid-winter horse show coming simultaneously.

On January 15th, the second field meet of the winter was held on the parade ground. Fifteen mounted and dismounted events ranging from Roman racing to the running broad jump, resulted in close competition and excellent scores. Troop A, Captain Herbert L. Earnest, captured the coveted championship streamer which has flown from Machine Gun Troop's guidon since the November meet.

Unprecedented bad weather so delayed the San Antonio polo tournament that it was impossible to hold the annual mid-winter polo tournament at Fort Brown before the target practice. However, polo was played regularly three times weekly throughout the winter. A civilian team was organized at Harlingen, twenty-five miles from Brownsville, and several games were played with this team mounted on 12th Cavalry ponies. Although the regiment had no outside military competition by which it could measure its strength, a number of good ponies and new players were developed. Major Oliver I. Holman is polo representative.

Captain Vernon M. Shell after four years at this station first as Adjutant and then in command of Headquarters Troop, has left for Athens, Ga., on R. O. T. C. duty. Captain Clyde E. Austin has accepted a four-year detail in the Quartermaster Corps and left for his new station, Brooks Field, in February.

13th Cavalry Notes

SINCE the publication of the last Journal, orders have been received relieving Lieutenant-Colonel W. W. Overton, Regimental Executive, from assignment to the regiment, effective June 20th, and assigning him to duty with the Organized Reserves, 83d Division, Columbus, Ohio. First Lieutenants Frank H. Bunnell and Don E. Carleton left the regiment on leave during January, preparatory to taking transport for foreign service in the Philippine Islands. Lieut. Col. Robert Blaine has been ordered to the regiment from the Army War College, effective about July 20th, and Captain Royce P. Gerfen will be transferred from the 7th Cavalry, effective May 1st. First Lieutenants Leslie M. Grener and Paul G. Kendall will join this spring from foreign service, as replacements for Lieutenants Bunnell and Carleton.

In accordance with the regimental commander's policy of setting a definite standard of appearance for the regiment, the members of the composite platoon, composed of one squad from each troop in

the regiment, have been busy polishing and shining all the articles of a cavalry soldier's equipment.

Eight Olympic prospects have been selected by the regiment to undergo special training for the Equestrian Championship and the Dressage. The government horses selected have been assigned to the best enlisted or commissioned riders, who are held responsible that the horses so assigned are trained. During the winter months at least forty-five minutes daily is spent on conditioning and training. The preliminary work-out consists in training in simple movements such as mount and dismount without horse moving; broken lines; the serpentine; half turn in reverse; the figure eight; half turn and circle.

The regiment march and song is now tentatively completed and ready for a public hearing. The lyrics were composed by Sergeant William Christy, Band, 13th Cavalry, and set to music by Warrant Officer W. W. Sidwell, 13th Cavalry.

"Here comes the Thirteenth Cavalry, none better you will find,
There's not a man among us from the Colonel down the line,
Who will not fight for what is right and shout 'It shall be done,'
From the early light of morning 'til the setting of the sun.

CHORUS

From the Sunflower State to the plains of Mexico,
Up and down the Texas border you could see us gaily go.
Here we are, all spick and span, as you can plainly see,
When we come 'It shall be done,' by the Thirteenth Cavalry."

SPORTS

In these days of business like pugilism it is a great relief to find that in the Army there are still embryo Dempseys who are willing to battle for nothing more substantial than glory and love of the game. The 13th Cavalry has a large squad entered in the amateur boxing tournament, now in progress at Fort Riley.

During the cold winter months the Post Exchange bowling alleys were scenes of closely contested battles. A bowling league was formed from the troops stationed on the post. Headquarters Troop, 13th Cavalry, although it finished up in third place, did some exceptional bowling. They held the team high score of 981 for a five-man team and also held the individual high score of 242.

The Post Basketball League was a big success this year. Much enthusiasm was in evidence. Headquarters Troop won the game and

championship. This is the fourth consecutive championship for Headquarters Troop of the 13th Cavalry.

Following last year's procedure, the enlisted men of the 13th Cavalry again sponsored a series of three horse shows. By voluntary contributions from the enlisted men, sufficient funds were raised to purchase a trophy to be awarded to the troop making the greatest number of points for the series. The regiment and each troop contributed additional amounts so that cash prizes and ribbons could be awarded in addition. Judges were selected from the Advanced Equitation Class. Master Sergeant James A. Grady presided as ring master with First Sergeant George Kershner as assistant. Much enthusiasm was developed over these shows, and a noticeable improvement in the horsemanship throughout the regiment was in evidence. The first show was held February 6; the second show February 21; and the third show March 6.

Notes From 14th Cavalry (less 1st Squadron)

COLONEL EDGAR A. SIRMYER, was the principal speaker at a special dinner tendered in honor of Master Sergeant Ernest T. Rudolph, Headquarters Troop 14th Cavalry on February 10, 1930, the date of his retirement from the regiment. Colonel Sirmyer's talk was most interesting to the younger generation of the regiment, he having recalled the days when he was serving with Sergeant Rudolph while a junior officer in the 14th Cavalry. The dinner was given to Sergeant Rudolph, by the Machine Gun Troop 14th Cavalry. Sergeant Rudolph's record of nine discharges bearing character "EXCELLENT" with not a single day lost. This record is one for any soldier to be well proud of.

The exhibition rides given by the troops of the garrison are attracting large crowds at each performance. Colonel Sirmyer, issues special invitations to the various civic organizations in Des Moines for the purpose of bringing the civilian population in closer contact with the Army. These rides will continue throughout the months of March and April.

In addition to the preparation for the exhibition drills, the troops of the garrison are now being given their quarterly proficiency tests by the Commanding Officer, these tests have prepared the men of the regiment for their outdoor training period which will begin on April 1st, in preparation for the annual tactical inspection by the Corps Area and Brigade Commanders, which will be held in the middle of May.

The officers are daily working out different horses in the riding

hall with a view of picking entries for the coming Olympic Games. This training is under the direction of the squadron commander, Major John D. Kelly, 14th Cavalry.

The Commanding Officer received and published a letter from Major General Herbert B. Crosby, Chief of Cavalry, congratulating the regiment on the occasion of its approaching birthday. General Crosby, once served with the "Fourteenth" and we feel as we are losing one of the active members when he retires on March 21. General Crosby carries with him the best wishes of every officer and man in the regiment.

Organization Day, was celebrated on Wednesday, March 5th, following list of events. On Tuesday a Gynkanna was held in the riding hall for the enlisted men of the regiment. Tuesday evening the enlisted personnel were hosts at a dance held in the Enlisted Mens' Club. On Wednesday the officers were formed at post headquarters and marched to the barracks where the men joined and paraded to the band stand headed by the Regimental Band. Colonel Sirmyer welcomed to the regiment the men who joined since last organization day, and gave an interesting talk to the members of the regiment relating the many experiences encountered when he was a junior officer in the Fourteenth. Special dinners were served for the men by their respective organizations at noon.

1st Squadron, 14th Cavalry Notes

THE 1st Squadron, 14th Cavalry, has been able to compete in all athletic events held at Fort Sheridan, Ill., during the winter months and was able to make a good showing. Troop B won the Post Championship in Soccer Football and Troop A came out on top in the Inter-Company competition with the 22 Rifle, and Troop B was second. Indoor Pistol and Rifle matches are now being fired.

The Post Gallery Rifle Team, is being coached by Captain W. C. Gatchell and is composed of five members, two of which are Cavalrymen, Sergeant Frank Kloss, and Corporal Stephen Newman, Troop B. Four matches have been fired to date with the Marines from Great Lakes Naval Training Station and the Post Team has won three of these matches. Sergeant Kloss and Corporal Newman were both firing members of the team.

Lieutenant-Colonel Charles R. Mayo, left the Squadron on March 1st for change of station, with the Organized Reserves in Maryland. (62d Cavalry Division).

ceived and it is expected he will arrive about the middle of May. His coming will be a big boost for polo.

March 5th the Squadron celebrated the 29th birthday of the 14th Cavalry by holding a Gymkana in the Post Riding Hall. Preceding the mounted events the Squadron was assembled and a short address was delivered by the Post Commander, Brigadier General C. H. Conrad, Jr., and then the Squadron Adjutant, Captain Chas. W. Fake, gave a short account of the Regimental History.

26th Cavalry in Philippine Division Movement

THE 26th Cavalry, Colonel R. J. Fleming Commanding, was attached to the Philippine Division for the annual maneuvers and concentrated with it at Fort William McKinley on January 8, 1930, marching from Fort Stotsenburg for that purpose on January 5, 1930.

January 12 found the Regiment protecting the right flank and rear of the Division at Mozon on Balayan Bay, while the main body of the Division, having moved from McKinley by motors, was carrying out its mission of defending the beaches at Batangas Bay. The Cavalry organized for defense a sector of the beach about two miles wide and five miles from Mozon and was prepared at all times to occupy and defend it in case of attack.

The first march north from the maneuver area was a night withdrawal. Upon arrival at McKinley, the 1st Squadron acted as escort to the Department Commander, Major General Douglas McArthur, and the Regiment participated in a Division review for him and for the Division Commander, Major General Paul B. Malone.

The Regiment arrived home at Fort Stotsenburg on January 26, having marched 275 miles in sixteen marching days, not a bad average in this climate for a unit the animals of which left the post in soft condition immediately after the Christmas holidays.

Both the Department Commander and the Division Commander expressed themselves as highly pleased with the performance of the Regiment, especially with its smoothness in marching and camping. Colonel Fleming's excellent conduct of the march, with flexible distances between units, caused the least possible interference with traffic on the road and brought the men and animals to the end of each day's march in the best possible condition for further effort.

305th Cavalry, Philadelphia, Pa.

THE Winter Inactive Duty Training of the 305th Cavalry started in October with the opening of two riding classes held on Wednesday and Friday of each week from 5:30 to 7:30 p. m.

Thanks to the great courtesy of the 1st Troop, Philadelphia City Cavalry, this regiment has the use of the Troop's equipped armory. The Troop has furnished the 305th Cavalry with two Colonels and several junior officers. Colonel William Innes Forbes, our present commander, was, at one time, First Lieutenant of the Troop.

Once a month there is held an evening conference while noon day conferences, at which either an officer of the regiment or an officer of one of the National Guard units gives a talk, are held twice weekly. The attendance at these informal talks is exceedingly gratifying and shows clearly that there is an active interest being taken in military affairs. The regiment is well represented in the correspondence courses—quite a few of the men have completed the basic course and many have gone through several subcourses.

Polo, under the leadership of Lieutenant Town is quite popular and several games have been played. Among other games the team played West Point at the Point and the 110th Field Artillery at Baltimore.

On February 13th and 14th, the Chief of Staff, 62d Cavalry Division, Colonel George T. Bowman, made an inspection of the officers of the regiment. He attended the meeting held at noon, February 14th, and gave a very interesting talk. There was a very gratifying turnout to greet this popular officer.

Officers of the regiment have been giving equitation instruction to members of the Infantry and Artillery Reserve Units in and about Philadelphia. These classes are well attended and are held as a rule at the Q. M. C. Corral. On Sundays a great number of the members of the regiment ride either in Fairmount Park which has wonderful bridle paths, or in the Armory of the First City Troop.

Philadelphia is very fortunate in having a large number of Hunt Clubs in the surrounding country. There are ten recognized packs that hunt wild native red fox and one pack hunting drag. These clubs hunt exclusive of cubbing from November 1st to April 1st and average three days per week. This gives the members of the regiment ample opportunity to hunt and of course provides excellent cross-country rides.

On March 12th the regiment held its annual hunt meeting. Through the courtesy of Charles W. Walker, Esq., M. F. H., the Whiteland Hounds are placed at the disposal of the 305th Cavalry once each year. The Hunt started at 2 p. m., Lochiel Farms, Exton, Chester County, the home of Max Livingston, Jr., Captain and Adjutant 305th Cavalry where the Whiteland Hounds are kenneled. Horses were lent by members of the Hunt to those officers who do not own suitable

mounts. As these animals are nearly all qualified hunters, many of them thoroughbred, the men who participated were guaranteed a good ride. After the hunt there was a dinner at the Warren Tavern, Malvern, Pa., an old inn dating from Colonial days.

Regimental Day, with its distinguished visitors, who are all met in official cars accompanied by guards of motorcycle police, will take place on April 17th. The day ends with the Graduation Ride of the Regimental Riding Class and a dinner at the Racquet Club. Many prominent officers of the Regular Establishment have been invited.

306th Cavalry, Baltimore, Md.

COLONEL JOHN PHILIP HILL, Commanding the 306th Cavalry has been selected to command one brigade of the 62d Cavalry Division at the 3d Corps Area Command Post Exercise to be held at Fort George G. Meade, Md., July 6th to July 19, 1930. The brigade staff is now being selected from members of the 306th Cavalry, a few other officers of the regiment, including the regimental executive, Lieut. Col. Matthew F. James, will be members of the division staff. This will afford these officers an opportunity to receive valuable training and should prove very interesting to them.

Additional meetings will be held during the remainder of the training year in order to give more time to the preparation for the C. M. T. C. at Fort Myer, Va., next summer. Lack of horses is proving a serious handicap in the preparation for this duty by the Baltimore personnel.

The Washington contingent is better situated in this regard as Colonel Guy V. Henry has made available to them the horses and equipment at Fort Myer, Va.

2d Squadron, 306th Cavalry, Washington, D. C.

INTENSIVE training in preparation for the Citizens' Military Training Camps this summer has been carried out. In this connection, all officers of the Squadron have sent to Riley for copies of the "Cavalry Field Manual. This little book fills a long felt need, and will be of great help to us by combining so many valuable facts in one text.

Considerable interest in mounted drills at Fort Myer has been manifested. About forty officers and Enlisted Reservists turn out for the Sunday rides.

Realizing that time is short and that the training problem is a big one this summer, several officers have spent one or two week days at Fort Myer, as guests of regular officers there, going through the reg-

ular daily routine of the post, including stables and care of animals, drills, guard duty, messing, etcetera. It is hoped more officers will be able to do this before camp.

Squad and platoon drill, Reserve Officers commanding, have progressed to the point where most creditable performances are given.

Twenty-three officers and men of this organization attended the February 11th meeting of the 306th Cavalry in Baltimore, at the residence of Colonel Hill, 306th Cavalry. Colonel George T. Bowman, Chief of Staff, 62d Cavalry Division, was present. After the regular meeting a general get-together of the regiment was enjoyed by all.

307th Cavalry (less 3d Squadron), Richmond, Va.

THE officers of the regiment are busy in preparation for active duty training this summer.

One field officer and seventeen line officers will be ordered to active duty at Fort Myer, Va., to assist in training students at C. M. T. C. July 18th to July 31st, inclusive. Other active duty periods will be the 3d Corps Area commanded Post Exercise, July 6th to July 19th, inclusive, at Fort George G. Meade, Md., and cavalry training at Fort Myer, Va., August 10th to August 23rd, inclusive.

Colonel William Henry Clifford was at regimental Headquarters on business this past month.

Indoor pistol practice will be held during March, through the courtesy of Major Liggan, Commanding the Howitzers, Virginia National Guard.

Conferences are being held on the last Thursday of each month.

3d Squadron, 307th Cavalry, Norfolk, Va.

THE officers of the squadron have been undergoing inactive duty training to prepare them for duty as instructors at the Cavalry Citizens' Military Training Camp to be held at Fort Myer, Va., July 18-31, 1930.

The attendance at the conferences and rides held at Norfolk has been excellent. The subjects covered at the conferences are those in which the officers will be required to instruct at the summer camps.

Several officers of the squadron attended the conference held at the Naval Y. M. C. A. on February 20th. The subject of the conference was "The Interpretation of Aerial Photographs," and was illustrated by numerous lantern slides taken from various heights and in various parts of the country. Captain Gerard H. Matthes, Aux-Res., who is an expert on aerial photography, conducted the conference.

308th Cavalry, Pittsburgh, Pa.

INACTIVE duty training has been progressing satisfactorily during the winter months with a monthly conference, rides twice a week and extension school work. The attendance at rides has averaged over twenty-five per ride since October.

At the January and February meetings a Command Post Exercise was given. A message center was in operation, messages coming in and out bearing on the S-2 and S-3 phase; thirty-two officers and men attended the February meeting. In March a problem on Class I and ammunition supply of a regiment in combat was given; twenty officers attended.

A great interest in polo is developing and it is the hope of the Regimental Commander to have a creditable polo team represent the regiment.

862d Field Artillery (Horse), Baltimore, Md.

THE most popular phase of inactive training this winter has been instruction in the use of the service pistol, held, by courtesy of the Maryland National Guard, at the Howard Street Armory every Thursday evening, under the supervision of Headquarters Baltimore Reserve Units.

We have been particularly fortunate in developing, as instructors, two Reserve Officers, Captains Arthur Blackburn and Joseph Savage, who are excellent shots and keenly interested in pistol marksmanship. These officers have aroused so much interest that it has been necessary to assign certain weeks to the various units to avoid overtaxing the capacity of the range. The improvement in marksmanship since last fall has been most noticeable.

A few otherwise successful citizens who were, at first, somewhat chagrined by the results of their first scores are now talking expectantly of qualifying as experts.

BOOK REVIEWS

The Way of a Man With a Horse. By LIEUT.-COL. GEOFFREY BROOKE, D. S. O., M. C. 90 Illustrations. J. B. Lippincott Co., Philadelphia, Pa. \$7.00.

Reviewed by Captain W. B. Bradford, Cavalry

A number of modern volumes are now being prepared for the Lonsdale Library on the subject of sports, games and other pastimes. Lieut.-Col. Geoffrey Brooke, D. S. O., M. C. was requested to contribute a work on horsemanship that would deal fully with the many intricacies that confront the novice. The choice was a happy one, for Colonel Brooke is an excellent horseman, of international fame, and a leader of thought in England. He was one of the first to break from traditional British methods of riding and his ideas are in close accord with all that is best in this and other countries.

With the collaboration of Col. A. G. Todd, R. A. V. C., D. S. O., and Lieut.-Col. Arthur Brooke, D. S. O., M. C., Colonel Brooke has prepared one of the best, if not the best, modern works on the subject. His opening history of the horse dates from ancient times and quotes most interestingly from Xenophon's Treatise on Horsemanship, showing how closely the ideas of the era are akin to ours of today in all matters of principle. He continues with a chapter on stable knowledge and routine, with particularly well chosen remarks as to feeding and exercise. The young rider is then considered and a complete course of training is given which begins with establishment of confidence and seat, instruction in the use of the aids, jumping and hunting. The trend of Colonel Brooke's ideas may be readily seen from the following quotations from his book.

In discussing the seat: "By suppleness of the body *from the hips*, which insures control of his balance, the rider is instantly able to adapt himself to any movement of the horse. *Correct balance, in sympathy with the horse's motion*, reinforced by grip of the thigh, knee and at times the upper part of the calf, is the fundamentals means by which the rider maintains his seat in the saddle." In speaking of the gallop he says: "He should first shorten his reins, as he will require to lean forward and keep contact with the horse's mouth. He must stand up in his stirrups, *increase the grip of his knees, on which he must support his balance, with the body leant forward and the weight taken off the back part of the saddle.*" For jumping he prescribes: "The pupil must learn to lean slightly forward as the horse takes off, allowing the body to resume the normal position as he lands." And in preparing horse and rider for the jump: "The instructor must make the rider canter around, — instead of sitting down in his saddle, he should lean forward, supporting his weight on his knees and stirrups, without using the reins to retain his balance."

Very little has been said with reference to getting the horse on the bit, an essential that is sadly neglected and misunderstood both in England and in this country. The author's description of balancing and collecting his horse before jumping leads one to understand that he advocates an equilibrium in which the center of gravity of the mass is displaced much more to the rear, and the horse is further back on his hocks than is desired in either the American or foreign continental armies. He desires an equilibrium and collection more suited to high school riding than jumping.

There are several excellent chapters on the prevention of disease and treatment of minor ailments, prepared by Colonel A. C. Todd, formerly Commandant of the Royal Army Veterinary School. These chapters are very simply and practically written and deal with only the more usual occurrences of this nature.

The author speaks of hunting, and of riding school training (French system) and includes an excellent outline for the training of hunters, jumpers and polo ponies. There are

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A Water Jump—The Cavalry School Graduation Race Meet